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# NYCENAEAN TROY TOLMAN AND SCOGGIN 

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## TO <br> THOMAS DAY SEYMOUR <br> ${ }^{\alpha} \nu \delta \rho i \stackrel{a}{\alpha} \gamma \alpha \theta \hat{u}$ <br> каì $\sigma о \phi \omega \hat{\iota} \tau \grave{\alpha} \mu \epsilon \gamma a ́ \lambda \alpha$


East Wall of Mycenaean Troy
The massive lower wall, with the advancing angles, is seen at $a$; while the upper wall can be distingruished at $d$. The side walls of the Tower VIh jut out at $b$ and $c$. The wall $e$ is a portion of the superstructure of the tower.

## THE VANDERBILT ORIENTAL SERIES

 EDITED BYHerbert Cushing 'Tolman and James Henry Stevenson

## MYCENAEAN TROY

BASED ON DÖRPFELD'S EXCAYATIONS IN THE SIXTH OF THE NINE BURIED UITIES AT HISSARLIK

BY
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## PREFACE

The first time I came in sight of the Troad, I felt as if the whole panorama of the Homeric wars had been suddenly spread out before me. This, I am sure, has been the experience of all visitors to the Trojan plain. About four miles off the mainland is Tenedos. Farther to the west is Imbros, while high above it, clear and distinct on the horizon, is the great Saoke of Samothrace. On the north, the Hellespont resembles a large river with steep banks, where the Thracian Chersonesus meets the eye. On its southern shore, between Sigeum (marked to-day by the unattractive houses of the village of Yeni Shehr) and the mound In Tepeh-indicating where the high and rocky Rhoetean shore began-was the position of the Greek fleet. The coast along the Aegean consists of a line of foot-hills, while the eastern boundary of the plain is formed loy the spurs of the Ida chain. Between these ranges, in a spot especially favored by nature, sheltered as it is by hills and sea, is the valley of the Scamander (modern Mendere), fertile and rich-soiled, where to-day is still to be recognized much of the Homeric flora. The present course of the river is toward the northwest corner of the plain, but in ancient times it probably flowed close beside the Ida range, and, meeting the Simois at the swamp of the modern Dumbrek Su, emptied by what is now a dead arm of the sea (In Tepeh Asmak) into the Hellespont. Here, on a ridge of the mountains where the
valleys of the Mendere and the Dumbrek Su meet, is the plateau of Hissarlik, with its nine strata of settlements dating from an age of thirty centuries before Christ to the time of the acropolis of the Roman Ilion, which reached its end about five hundred years after the Christian era-a spot in full view of the traveler as he enters the Dardanelles en route to Constantinople.

The excarations (1893-9t) which Dörpfeld contiuned after Schlienamn's death (1890) show in the sixth stratum from the bottom a Mycenaean city built in terraces, with a mighty circuit wall, three massive towers, three gates, and uumerous buildings. For this stately acropolis Dörpfeld claims the title of Homeric Troy, and few archaeologists who have stood under its imposing walls are inclined to dispute this claim. He uotes the following characteristics (Troja und Ilion, pp. 601-612) in which the VI City agrees with the description in the Homeric poems:

1. Its low site in the Troad corresponds to that described in $x, 216$, "Sacred Ilios, built upon the plain." The epithets "well-walled" (єілєєхच́s), "steep" ( $\alpha i \pi \epsilon \iota-$ vós), "sheer" (aimús), apply to its high and precipitous walls, which to-day impress every visitor with their massiveness and streugth. "Beetling Ilios" ("I^ıos ó $\phi \rho{ }^{\prime}{ }^{\prime} \epsilon \sigma \sigma \alpha, \mathbf{X}, 411$ ) appropriately describes the abrupt slope of the northern side of the plateau, while "windy" ( $\quad \nu \epsilon \mu$ о́єьs) fully characterizes the plain swept by the breezes from the Hellespont.
2. The well-wrought stones, as seeu in the South Citadel Wall, the towers, and several buildings, show that the poet's description of dwellings built of "polished stone" ( $\xi \in \sigma \tau \circ \hat{o} o \lambda i ́ \theta o o)$ was not based on the imag-
ination, although, when the Cyclopean walls of Tiryus and Mycenae were the only relics of the heroic age, they seemed to contradict the Homeric picture.
3. In $\Pi, ~ 702$, we are told that "thrice did Pa . troclns seek to climb upon the 'elbow' of the lofty wall." Such an escalade is possible in the strongly scarped lower wall of the VI City, where its rough stone forms an "elbow" with the perpendicular upper wall. Again, we read ( $\mathrm{Z}, 433$ ) that " beside the fig tree the wall may be best sealed, and the city is more assailable." This portion of the citadel must have lain on the western sile, where the slope of the hill makes the town more accessible than on the north, and where, too, the excavations show the walls of our city to be more poorly constructed.
4. Of the many gates of Troy (B, 509), Homer gives the ammes of two, the Scaean and the Dardanian. Of the three gates mearthed in our city, VI T must have formed the principal entrance on that portion of the hill where the city was most accessible; while on the northern side, where the wall is entirely destroyed, the gate towering high above the plain could hare been reached only by a ramp, such as is seen to-day in the ruins of the retaining wall beside the Northeast Tower. It is presumable that the Dardanian Gate lay in the direction of the Ida range, toward the southeast, where Dardania was situated, and where the excarations have brought to light the great South Gate, VI T. From this gate, the farthest removed from the battlefield, the Trojans ( $\mathrm{E}, 789$ ) did not dare to issue while Achilles went forth to battle, nor did the Trojan women ( $\mathrm{X}, 155$ ) venture longer to wash their garments at the springs lying near.

The Scaean Gate, on the other hand, must have been on the side of the hill toward the Greek ships. If we restore a northwestern gate in the missing North Wall, we should have a gate opening, as did the Scaean Gate, on the battlefield, and flanked on the assailants' left by a mighty tower from which the beholder had an extensive view over the plain. With the North Wall and the Northwest Gate restored, the following plan may mark the outline of the Trojan citadel.


Plan I. Tie Restored Citadel
5. Inside the city, according to Homer, were separate dwellings. The royal palace must have lain in the center of the citadel, where, in the VI City, all buildings are destroyed. The house of Alexandros ( $Z, 316$ ) consisted of thalamos, doma, and aule. Such an arrangement is seen in the stately building VI A, where we observe a closed roon, a half-open ante-
chamber, and an open court. While VIF shows Cyclopean masonry, VI A is constructed of small rectangular stones. In fact, Homer's description so fits the buildings of the VI City that it seems as if the poet had an accurate knowledge of the Trojan house.

In two places in the poems ( $Z, 88$ and $E, 446$ ),-regarded by many scholars as interpolations (cf. C. Robert, Studienzur Ilias),--references are given to temples. Moreover an altar of Zeus lay at the summit of the citadel ( $\mathrm{X}, 172$ ). There is a possibility that the building VI C of our city may be a temple.
6. The citadel walls of the VI Stratum, forming an immense polygon, the broad circuit street inside the city, with several cross streets leading to the summit of the acropolis, and the houses arranged in terraces about the center of the citadel, justify the Homeric epithets, "well-stablished" ( $\epsilon \dot{\varepsilon} \delta \delta \mu \eta \tau o s)$ and "wellbuilt" (ėvктіцєvos).

My special obligation is due to Dr. Wilhelm Dürpfeld for his kind permission to use freely his great work, Troja und Mlion, on which I have based the description of the Mycenaean City, and from which I have taken much of the illustrative material.

Professor Alfred Heinrich also has allowed the use of his excellent monograph, Troja bei Homer und in der Wirklichkeit. On this work the chapter entitled "The Mycenaean Age and the Honeric Poems" has been largely based, butseveral of Professor Heinrich's views are here slightly modified.

I have adapted to the present work-especially in the chapters on the "Troad" and "Mycensean Civili-zation"-a number of sections from an article on the

Troad, which I wrote shortly after a journey to the Orient.
ln my preparation of this volume Mr. Gilbert Camplell Scoggin, my former pupil, and now a teacher of some years' experience, has been closely associated, and it is an especial pleasure to me, as his old teacher, to connect his name with mine on the title-page.

Mycenaeology is a little over a quarter of a century old. It was in 1876 that Dr. Schliemanu unearthed the treasures from the royal graves at Mycenae and gave the world the first glimpse of that anciont civilization which has since been shown to have extended over the mainland of Hellas and the isles of the south Aegean -a civilization whose type is thesame, however widely distant the localities where remains are found, whether in Crete or Thessaly, in Rhodes or Argolis, in Cyprus or Boeotia. It was for him to present the problem which is daily assuming vaster proportions. It will befor others to solveit. But the solution is not now. Theories adranced yesterday are to-day set aside. It is only when all the evidence has been gathered in that the great questions connected with Mycenaean culture can be finally settled. It is almost providential that Dörpfeld's Troy, with its imported Mycenaean pottery, should remain buried until the very time when the new science could pronounce verdict upon it. Herbert Cushing Tolman.

Vanderbilt University,
Nashrille. Tenn., October 2, 1903.

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MYCENAEAN TROY

# Fuit Ilium et ingens Gloria Teucrorum 

## THE TROAD

1. General Description of the Plain. Far in the south of the Trojan Plain rises a high mountain peak, from


Fig. 1. Mount Ida
which extend ramifications, northeastward and southwestward, so numerous and multiform that by old writers the mountain was likened to a monstrous centipede. ${ }^{1}$ This is "many ridged" Ida (X, 171; $\Lambda, 112$;

Y, 91), and that topmost crest is Gargarus, ${ }^{1}$ rising almost six thousand feet, blue and majestic, its ranges broken by river valleys, until at last a line of hills runs to the Hellespont and completes the eastern boundary of the Trojan Plain. On this summit sat Zeus, "exulting in glory, looking down upon the city of the Trojans and the ships of the Achaeans" ( $\Theta, 47-$ 52). Here was his sanctuary $(\Theta, 48)$. Hither repaired Hera ( $\Xi, 292$ ).

A little distance from the coast is an island rising like a hill out of the sea. Its proximity to the shore makes it a conspicuous object in the Trojan country.

Est in conspectu Tenedos, notissima fama
Insula dives opum, Priami dum regna manebant.
The theater of the Homeric wars is before our eyes. Tenedos (A, 38, 452; $\Lambda, 625 ; \mathrm{N}, 33 ; \gamma, 159$ ) lies in front of the wide Besika Bay, about four miles from the mainland and twelve from the Hellespont. Farther in the distance is "rugged" Imbros ( $\mathrm{N}, 33 ; \Omega, 78$ ), above which towers the hage Samothracian mountain. ${ }^{2}$ It was from this summit that Poseidon looked upon the battle, "for thence was plain in sight all Ida, and plain in sight were Priam's city and the ships of the Achaeans" (N, 11-14). In a clear day "holy" Lemmos ( $\mathrm{B}, 722$ ) shows its outline in the west, while, over one hundred miles distant, Mount Athos ( $\Xi, 229$ ) is dimly seen at sunset.

Between the Thracian Chersonesus, which in the

[^0]'susen


XOML AO NIVIA 'G DIS

6
clear atmosphere of the Troad seems close at hand, and a sandy promontory guarded by the crumbling old fortification of Kum Kaleh ("sand fortress"), the "strong-flowing" Hellespont (B, S45; M, 30) meets the sea. Near the entrance juts out Cape Sigeum, where to-day is the Christian village of Yeni Shehr, while about four miles to the east is the rocky shore of Rhoeteum (Rhoeteae orae, Verg. Aen., MI, 108). Between these two points, not very far from Troy (for heralds go and return before sumrise), was drawn up the Greek fleet, "row behind row, filling up the shore's wide mouth, which lay betwixt the headlands" ( $\Xi, 33$ ).

Along the Aegean Sea a low line of hills slopes somewhat abruptly toward the water's edge. The eastern range, stretching from the highest crest of Ida, after repeated interruptions, ends at Rhoeteum. Between these eastern and western ranges lies the deep-soiled valley of the Scamander, with here and there groves of oaks, while reed and tamarisk line the river bank, as in Trojan days. ${ }^{1}$ Another valley-this time of an insignificant swamp stream, called Dumbrek Su, and often identified with the Simois-cuts the eastern chain of hills at a little distance from the Hellespont.

Here at the southern point of meeting of the two valleys of the Scamander and the Dumbrek Su is the mound of Hissarlik, rising about sixty feet above the plain, and over three miles distant from the sea and from the Hellespont. ${ }^{2}$ The hillside is rather precipi-

[^1]
(23)
tous on the north where it meets the swamp of the latter stream, forming a marked contrast to its gentle incline westward into the broad and level plain of the Scamander.

The name Hissarlik ("little fortification") was given to this locality because of the Hellenistic remains which were here visible. In fact, the inhabitants of the little settlement of Tshiblak, a mile or so distant, designated it the "Place of Ruins" (Asarlik). Today it is a place of ruins indeed, and, we may add, of isolation and desolation as well. A more lonely spot the traveler rarely visits, and he can find shelter for the night only in the miserable little villages of Yeni Shehr or Yeni Koï. Yet this insignificant hill marks the site of the Homeric Pergamos, or at least that city whose siege and capture formed the historical basis of the poems. On the same plateau was built the Greco-Roman Ilion, with its world-renowned Athena temple. Xerxes (Herodotus, VII, 43) and Alexander (Arian, I, 11) ascended the citadel, believing that they stood in "divine Ilios."

As the eye surveys the Trojan country, it is attracted to those heights near Bunarbashi, almost ten miles distant from the Hellespont, amid which, in the mountain fastnesses, where the Ida range is high and steep, is the fortress of Balidagh. Rising as it does five hundred feet, it forms an excellent spot for an im-

History of Greece, 1846; Schliemann, Ithaka, 1869; Gladstone, Homer, 1878; Sayce, Contemporary Review, 1878; Eckenbrecher, Die Lage des homerischen Ilion, 1842; Braun, Homer und sein Zeitalter, 1858; Christ, Topographie der troianischen Ebene, 1874; Meyer, Geschichte von Troas, 1877; Lenormant, Les Antiquités de la Troade, $18{ }^{8} 6$.
pregnable stronghold. In early times many believed that it was Priam's citadel. ${ }^{1}$ This is not strange, for so strategic is its position that Count von Moltke writes: "We who are no scholars allow onrselves to be guided solely by military instinct to the spot which, in old times as well as now, men would have selected for an inaccessible citadel."

The mention of oljects familiar only to one who knows the Trojan country suggests that the poet had seen the Troad; ${ }^{2}$ that, as he observed the sun set behind Imbros and "wooded" Samothrace, bringing them boldly out in the ruddy glow of the twilight, he pictured deity on the mountain's topmost crest. A man as conservative in this matter as Professor Christ is led to assert (Geschichte der griechischen Litteratur, 1898, p. 55): "His descriptions of Mount Ida, of the plain of the Scamander ( $\mathrm{E}, 7$ T3), of Poseidon's high lookout from Samothrace ( $\mathrm{N}, 10$ ) are so true to nature (zpigen so viel Neturucahrheit) that we must

[^2]feel that the poet had looked with his own eyes upon the theater of his heroes' deeds." At any rate, the traveler, as he looks down upon the city and land of the Trojans, does not feel inclined to be skeptical; rather he is ready to exclaim:

O patria, O dirum domus, Ilium, et incluta bello Moenia Dardanidum.

Every spot before him seems pregnant with the burden of Troy's story:

Hic Dolopum manus, hic saerus tendebat Achilles;
Classibus hic locus; hic acie certare solebant.
2. The Scamander. Before it broadens out into the plain, the Scamander (Mendere) flows through a rocky valley. Its present course is considerably over a mile distant from Hissarlik. It enupties into the Hellespont at the extreme west corner of the plain. Consider the situation: the distance of the Scamander from Hissarlik; its outlet, near Sigeum, to the extreme west; the Greek fleet along the Hellespont, and, accordingly, on the right bank of the river. Now Homer's picture puts the Greeks on the opposite side. Beloch represents the Scamander of Homer as flowing its present course. ${ }^{1}$ In doing this he is compelled to give a forced interpretation of $\Omega, 692$, a wrong explanation of $\Lambda, 498$, and $\Phi, 1 \mathrm{ff}^{2}{ }^{2}$ These difficulties have induced many to believe that the poet had no acquaintance with the Troad. He puts the Greek host along the Hellespont; again he represents them

[^3]on the left of the Scamander. Priam has to ford the river to visit the tent of Achilles. Surely there is no room along the Hellespont between the mouth of the present Scamander and the sea. The Greek camp

must, therefore, lie to the right; and if so, why should Priam have occasion to cross the stream?

An old river bed is seen close to Hissarlik, dry in summer, with here and there pools of water. This has been identified with the ancient course of the Scamander. It is flooded in the rainy season, and bears the name Kalifatli Asmak, from the little village of Kalifatli by its side. But we have not yet enough to
explain the situation in the Iliad; for after passing Kum Koï ("sand village"), which lies a little to the northwest of Hissarlik, the small stream has made a sharp bend, and empties through a delta too far to the west to allow the position of the Greek fleet between its mouth and the sea.

The Homeric description needs the following: At Rhoeteum, near a mound, which is called to-day In Tepeh, but which tradition styles the "Tomb of Ajax," is observed a streamlet which almost joins in a direct line the Kalifatli at the point where the latter makes its bend to the westward. Here we may mark the mouth of the historic river. In that case the Scamander of Trojan times flowed along the eastern range of hills, passing under the mound of Hissarlik, and from thence making its course in a straight line to the Hellespont, which it joined at Rhoeteum. This would leave the bend of the sea from Sigeum to Rhoeteum free for ships, and would place the Greeks on the opposite side of the river to the Trojans. Demetrius of Skepsis, misinterpreting a statement in He rodotus, ${ }^{1}$ supposed that the shore along the Hellespont had adranced. Virchow has made geological tests and failed to find anything to indicate that this portion of the plain is an alluvial deposit. He shows also how it is impossible for land to form against such a swift torrent. ${ }^{2}$ Furthermore, in a work attributed to an old geographer, Scylax, the statement is made that Ilion is twenty-fire stades from the sea, which is practically the distance of Hissarlik from the Hellespont

[^4]to-day. 'This theory for the old course of the Scamander is still unrefuted. ${ }^{1}$
3. The Simoïs. The insignificant swamp brook (Dumbrek Su ), often identified with the Homeric Simois, can hardly be classed with Vergil's butfeting river:

Ubi tot Simois correpta sub undis
Scuta virum galeasque et fortia corpora volrit.
It seems that this stream ought not to have a prominent place in Homer; yet it is referred to seven times, with no hint of its being smaller than the Scamander. Hercher argues that the mention of the Simois in the Homeric poems is a late interpolation by one who knew nothing of the Trojan country. ${ }^{2}$ Rossmann takes the opposite extreme view, and believes that only one thoroughly versed in the Troad could picture the Simois in the light it is. He bids us look at the picture of the Scamander imploring the Simois to aid against Achilles ( $\Phi, 308 \mathrm{ff}$.), and supposes that such a scene would be inapplicable to an independent (selbstïndiger) stream; that it is highly fitting that the Simois flow its sluggish and lazy course, remaining in the swamp till through the pressure of high water it reaches the Scamander. Yet Rossmann's argument (quoted with favor by Heinrich) loses its force when we consider that in all probability this portion of the Iliad belongs to the third stratum of the poem.
4. Bunarbashi. To the old arguments identifying

[^5]the heights of Bunarbashi with "steep" and " windy"
 adds a new one remarkably unique. From Grave IV on the acropolis of Mycenae, a grave which is the oldest of the shaft-tombs, was taken a silver vase


Fig. 4. Siege Scene from Sinter Vase (Mycenae.)
whereon was pictured a battle scene. The vase is shattered, but one large fragment and several smaller ones are preserved. The engraving was obscured by a thick accretion of oxide; hence this most interesting relic lay in the National Museum unnoticed. Koumanoudes was the first to bring the scenes to light, and Tsountas to give them to the world in the 'Ефүиє-

[^6]pis ả $\rho \chi \alpha \iota о$ оү七к $\eta$, 1891. A contest before a walled city is clearly seen. On the steep hillside rise the fortifications, towering above which, like terraces, are squares upon squares, which may represent the roofs and towers of the city. On the wall stand women, five in number, while the hand of a sixth is seen upraised. They appeal wildly to the struggling warrion's to save the city. Immediately under the battlements are two figures, upright and serene. These may be the elders of the town come out beyond the gates to inspire resolution, clothed with the chlaina; ${ }^{1}$ or they may be spearmen, with shield and spear. ${ }^{2}$ Before the two figures kneel bowmen, with arrows fixed; and in front of these stand slingers in the midst of action. At the bottom appear the head and breast of a helmeted warrior wearing a short chiton. Two men are crouching among the slingers. This picture almost fits the battle scene on the shield of Herakles. ${ }^{3}$

Nikolaïdes startles us by seeing on this vase the battlements of Troy. From the wall Hecuba, Andromache, and other women are looking on the fate of Hector ( $\mathrm{X}, 405$ ), while Achilles nods to the Greeks not to strike at Hector, but to leave to him alone the glory of his cleath. Lines below the combatants are interpreted as the two springs-the one warm, the

[^7]
Fig. 5. Soutirwest Wall of II Stratum
The wall of the cicy is seen at $a, h, c$, above which are houses of later settlements.
(32)
other cold-which the adherents of the Bunarbashi theory think they find on this spot. ${ }^{1}$

If this were Troy, the steep apon which stands the city would suit Bunarbashi far better than Hissarlik. But Nikolaides fails to consider that the vase is probably older than the period of the Trojan war. ${ }^{2}$
5. Schliemann's Troy. II Stratum. The view of many scholars, as we have seen, had placed the Homeric citadel on the Balidagh summit near Bunarbashi. Others had followed the tradition which had extended from ancient times, that the Greco-Roman Ilion occupied the site of ancient Troy. In 1868 Heimrich Schliemann first visited the Troad, and he too examined the heights overlooking plain and sea, above Bunarbashi; but the remains here disclosed, both during the excavations of Mahn in $186 \pm$ as well as during those of Schliemann, were scanty and insignificant. Convinced that Priam's city was not on this mountain fortress, Schliemann turned his attention to the low, oval-shaped plateau of Hissarlik, and published his belief ${ }^{3}$ that here was the site of the Homeric Troy. In 1870 he began his work of excavation, which he continued with repeated interruptions for twenty years ( $1870,1871,1872,1873,1878$, 1879, 1882, 1890). At first he found on the hill of Hissarlik seven distinct layers of superimposed settlements. ${ }^{*}$ The first, an insignificant settlement, lay on
${ }^{1}$ Lechevalier, Yoyage de la Troade, 1802. Cf. Heinrich, Troja bei Homer und in der Wirklichkeit.
${ }^{2}$ Frazer, Pausanias, III, 117.
${ }^{3}$ Ithaka, cler Peloponnes und Troja, 1869.
${ }^{4}$ Schliemann, Ilios; Schuchhardt-Sellers, Schliemann's Excavations, 1891; Perrot et Chipiez, Hist. de l'Art dans l'Antiquité, 6, 179 (English edition, 1894).

the virgin rock; its walls and houses were built of clay and rubble stones. The second was thought by Schliemann to be the Ilios of Priam. Its circuit wall and buildings were constructed of brick, with stone foundations. A palace was discovered corresponding somewhat in general arrangement to the palaces of Tiryns and Mycenae. The pottery, often grotesque, was monochrome. On some of the gold ornaments


Fig. 6. Paved Ramp at Gate FM (II Sthatum)
unearthed were rosettes and spirals similar in pattern to what we designate to-day the gold work of the oldest stage of Mycenaean civilization. The citadel, as shown by the discovery in 1890 of three citadel walls, had been twice extended. A conflagration had destroyed the town. This must be, Schliemann thought, the Homeric Troy. In perfect assurance he applied to every object found an appropriate name. The gold ornament, with its countless tassels, became part of
the "Treasure of Priam" (Sckatz des Priamos). In the Museum fiur Völkerkunde, at Berlin, where most of the discoveries are preserved, we used to read a label as significant as the following: "Skull of a Trojan Warrior" (Schëdel eines trojunischen Triegers). We cannot condemn such enthusiasm when we realize that the all-controlling ambition of Schliemann's life -a life which reads like romance-was to find the Homeric Pergamos. It is pathetic to remember that he died just as "Mycenaean Troy" was brought to light. Howerer much his statements may be modified or his theories changed, the name of Heinrich Schliemann will be spoken reverently as long as history, literature, and art have place among men.

We are now able to assign the date of Stratum II to about the period of Cretan dominion (2500-2000 B.C.), and in so doing we recall the tradition that Teucer, founder of the most ancient Trojan city, came from Crete. Surely the archaic pottery of this stratum is inferior to that found at Thera (dated circa 2000 B.C.).
6. Dörpfeld's Troy. VI Stratum. In the excavations which Schliemann and Dürpfeld carried on conjointly in 1890 nine layers of settlements were distinguished instead of seven. In the sixth stratum (in the megaron of VI A) was found the lustrous class of pottery charactcristic of the best Mycenaean period. ${ }^{1}$ Ruins of city buildings were also discovered. The neglect in former excarations to appreciate the importance of this settlement is partly due to the fact

[^8]

Fig. 7. Wrall of Mycenaean Truy
On the Ieft is seen the well of the VI Stratum, and on the right appear the foundations of structures built in Roman times. Between these, and also on the extreme left of the picture, theinferior masonry of the VIII Stratum can be distinguished. In the distance stretches the valley of the Simois.
that the Romans cut away old buildings to obtain a level foundation for the new city.

Dörpfeld continued the work after Schliemann's death. Fortification walls, dwellings, gates, towers were laid bare. ${ }^{1}$ Some of the streets were paved with gypsum. The citadel was terrace-formed. Several of the houses consist of a large apartment and antechamber, resembling in this respect the megaron of the palace discovered at Gha, the private house unearthed close to the south wall of the citadel of Mycenae, and the women's hall at Tiryns. Although the large megara at Mycenae and Tiryns are distinguished by antechamber ( $\pi \rho o \delta \delta o \mu o s$ ) and vestibule ( aïovaa), the Homeric description fits the simpler arrangement of a single anteroom designated by both names. The columns of the Trojan megaron are absent, with one exception. This may show that the design was taken from the buildings of the prehistoric settlements, especially the palace of the second stratum. The wall of the city, built out of blocks of limestone, is seeu on the south, west, east. The foundation wall, sixteeu feet thick and fifteen to twenty feet high, is scalable on the east side. Upon this is built a perpendicular upper wall, six feet thick. There are three gates -one on the south, another on the southwest, another on the east. A tower stands by the south gate, another juts out farther toward the east wall, while at the northeast corner rises a mighty tower which guards the water supply. ${ }^{2}$

Vases of Mycenaean patteru were unearthed, in-

[^9]cluding the lustrous "false-necked" Mycenaean jars. Each of these jars-unique specimens of ceramic arthas a closed neek with a spout close beside it, through which the liquid is poured, while the handles, joining the neck, resemble a pair of stirrups; hence the German name, "stirrup-jar" (Bügelkanne). Since the general type of pottery of this stratum is the de-


Fig. 8. False-Necked Mrcenaean Jar
veloped monochrome and probahly a native product, the Mycenaean ware must be explained as importations. ${ }^{1}$
The following points of comparison between the VI City and Homeric Troy were given by Dörpfeld in the report ${ }^{2}$ of his work for 1893:

1. The Pergamos of Troy, according to Homer, was no level citadel, since near the dwellings lay ${ }_{\epsilon}^{e} v$ а́кротátך по́дє $(\mathrm{X}, 172)$ an altar of Zeus. So, according to the conception of the poet, there was a highest point in the citadel, where was the altar of Zeus and perhaps the two temples of Athena and Apollo. For the citadel of the second stratum such

[^10]
PLANIIT. CITADIL OF MYCENAEAN'TROY (VISTRATUMI) AND ATHENA PIRECINCT of Roman Ilion (IX Stratum)
a description is impossible, for it was built on a level; but in the sixth city the middle and northern part lay higher than the rest.
2. The buildings of Tiryus are erected partly in Cyclopean manner with great or small unhewn stones, and partly with clay bricks. According to Homer's words, we have to suppose most of the buildings in the Trojan citadel built in a different manner-i.e., of smooth, hewn stones. So the dwellings of the sons and sons-in-law of Priam were $\xi \in \sigma r o ̂ o ~ \lambda i \theta o o o ~(Z, ~$ $24 t$ ). While this description could not fit Tiryns, it exactly suits the dwellings found on our citadel. This is worthy of note, as it was thought impossible that wails and towers at that time could be built of hewn stone.
3. In the Pergamos of Troy, Homer knows a number of separate buildings, dwellings, and temples, which, though separated, yet lie near together. In the citadel of Tiryns such separate dwellings are not found. At most, one can see a second separate dwelling in what is generally regarded as the women's apartment. It is otherwise in our citadel. All the buildings thus far found are separate structures at a little distance from each other.
4. The bouse of Alexandros, according to Homer ( $Z, 816$ ), consisted of three parts: the thatamnes, the doma, and the cule. By thalamos we can understand a closed chamber, which formed the interior of the dwelling and was used as a sleeping apartment. The doma is a reception-room in front of the thatemos, thus being the anterom of the house. The aule is the open court before the dwelling. A like threefold division is seen, though not so clearly, in
the palaces of Tiryns and Mycenae. The court is a double one. The doma consists of a hall, antechamber, and vestibule; and, instead of a single thalamos, we have there a special women's apartment, with a number of rooms beside it. In our citadel several of the buildings discovered consist of such au arrangement. Before each structure we must suppose an opeu court. The great closed apartment is the thalamos, and the half-open antechamber is the doma.

Dörpfeld described the nine strata of settlements on Hissarlik as follows: ${ }^{1}$
I. Lowest primeval settlement; walls of small rubble stones and clay; primitive finds; date (only conjectured), 3000 to 2500 B.C.
II. Prehistoric citadel, with strong walls of defense and large dwellings of brick; three times destroyed and rebuilt; monochrome pottery; many objects of bronze, silver, and gold; date (conjectured), 2500 to 2000 B.C.
III., IV., V. Three prehistoric villages above the ruins of the second burned city; dwellings of small stones and brick; similar old Trojan pottery; date, about 2000 to 1500 B.C.
VI. Troy; citadel of the Mycenaean age; massive wall, with a great tower ${ }^{2}$ and respectable houses of well-wrought stone; the Pergamos of which Homer sang; developed monochrome Trojan pottery; inuported Mycenaean vases; about 1500 to 1000 B.C.

[^11]VII., VIII. Villages of the older and later Greek period; two separate strata of simple stome houses above the ruins of the VI Stratum; native monochrome pottery, and alnost all the known kinds of Greek ceramic art; date, 1000 B.C. to the beginning of our era.
IX. Acropolis of the Roman town Ilion, with a famous temple of Athena and beautiful buildings of marble; Roman pottery and other objects; marble inscriptions; date, beginning of our era to 500 A.D.
7. Was There a Real Troy? With only Schliemann's "Burnt City" lefore them, we do not wonder that scholars were skeptical. Opinions were divided. One extreme view declared: "We know nothing of Ilion, in spite of Hissarlik and Schliemann. There are found interesting excarations in the land south of the Hellespont, but this is no proof that Troy was once on this spot. A pious opinion must not stand in place of proof." ${ }^{1}$ In implicit faith that the Mycenaean discoveries are an exact picture of the Homeric age, Schulze swung to the opposite extreme. "The heroes of the Trojan war," he asserts, "used elegant vessels, wore seal rings upon their fingers, were attired in ornaments of gold, and have left as an inheritance to our day their faces outlined in gold masks." ${ }^{2}$
The picture of life in Homer is practically the same for Greeks and Trojans. Both races have the same political, moral, and religious conditions. Comment-

[^12]ing on this, Leaf said:1 "But we know for certain that the dwellers upon the hill of Hissarlik were at a completely different and altogether lower stage of civilization than the royal race of Mycenae. Scarcely half a dozen objects have been found which show a point of contact. If, therefore, Homer correctly describes the Achaeans, his Trojans are quite imaginary." Ludwich, although admitting that most Mycenaean finds are older than the Homeric age, yet declared them to show that the Iliad is no picture of the imagination, but rests upon a real foundation. ${ }^{2}$

What shall be our verdict, now that a new Troy has been brought to light? Shall we accept Dörpfeld's positive words: "Stratum VI is the Homeric Troy, destroyed by the Greeks" (Stratum VI ist das homerische Troja von den Griechen zerstört ${ }^{3}$ )? At any rate, we are sure that here is a city which had come in touch with Mycenaean civilization, and we can believe that its destruction formed the historical basis of the poem. "The differences," says Frazer, "between the Achaean civilization, as revealed to us by Homer, and the Mycenaean civilization, as exhibited in the monuments, are to be explained by the somewhat later date of the poems, . . . having been composed at a time when the old civilization . . . surrived only in popular tradition and the lays of minstrels as the fading memory of a golden age of the past."

[^13]
## THE MYCENAEAN CITY

In the earlier excavations on the hill of Hissarlik the stately circuit wall and the buildings of the VI Stratum had not come to light. Shortly before Schliemann's death, in the year 1890, the first structure, with the vases of Mycenaean pattern found therein, was unearthed. This building (VI A), we may say, formed the starting point for completely laying bare the Mycenaean citadel. While on the southeast and northeast of the hill a part of the South Circuit Wall and several inner buildings remain buried undel ruins and débris, yet the excavations enable us to form a satisfactory picture of the massive city wall, the huge towers, the gates, the terraces, and the dwellings of the ancient fortress. ${ }^{1}$
8. Masonry. ${ }^{2}$ The VI City shows a marked difference in its style of masonry. Some portions of the walls are made of blocks carefully wronght and fitted together, without cement, so closely that the interstices are hardly visible; others are constructed of stones, ouly the outside of which is polished, and the interstices filled with rubble and clay; again, in several places, the stones are monrought, as in the so-called Cyclopean masonry.

[^14]Such differences in the style of stone work are recognized in tig. 9 and fig. 10. In the former we see a projecting angle of the building VI M, and observe how well-wrought and how closely fitted are the stones at the corner, while in the lower part of the


Fig. 9. Retaining Wall of VI M
wall the blocks become more irregular and the interstices are filled with rubble. In the latter figure there is seen a portion of the Tower VI h projecting from the East Citadel Wall. It will be noted that the city wall (c) shows on its scarped surface irregular stones, in contrast to which the blocks of the tower wall appear well-wrought and with such regular interstices that they remind us of the fine Hellenic isodomons masonry.
9. Building Material. ${ }^{1}$ Originally a brick upper wall, later replaced by stone, was built upon the solid

[^15]lower wall of the stronghold. Clay was employed in the construction of the horizontal roofs of the houses. The building material for the timbers of the roof, for the platform inside the towers, for the beams in some of the walls, for the pillars and doors, was wood. The parastades, on the other hand, seem to have been built of stone, not of wood as in the case of the II


Fig. 10. North Wall of Tower VI h
Stratum. In the construction of the parement burnt lime was used, as is seen on the steep ascent near the building VI M, leading from the South Circuit Wall to the high terrace of the inner citadel. It is likely that lime cement, like the Mycenaean pottery, was an importation, since it has not been discovered elsewhere. Although great pithoi filled with that substance were unearthed in the Tower VI h, yet Dörpfeld does not believe that lime was generally used in the VI City for building material.

## The Walls of the Citadel

10. The Extent. ${ }^{1}$ The wall on the whole east side of the hill has beeu uncovered to its foundation. Even on the south side and in a part of the west side, where it is not fully excarated, its course is clearly defined. On the north, however, no trace remains unless it be a small fragment near the great Northeast Tower. The entire circumvallation must have measured about 540 meters. Of this circumference, 330 meters are preserved, giving us about three-fifths of the original circuit. When the other two-fifths were destroyed, we cannot fully determine. A tradition, however, preserved in Strabo XIII, 599, declares that Archaianax (about 550 B.C.) used the stones of old Mios to build Sigeum, while still another tradition states that Achilleum was constructed from the Trojan ruins. In the modern village of Yeni Shehr, which occupies the site of Sigeum or Achilleum, there are built into several of the houses square stones which correspond in material and workmanship to the blocks of the VI Stratum. The ancient situation of both these towns to the north of Troy favors this tradition.
11. Periods of Construction. ${ }^{2}$ The fortress wall exhibits such different styles of masonry that it is im-

[^16]possible to assign its whole construction to the same period. At one time must have been built the West Wall, from its western end to the Gate VI U; at another period the entire South Wall, from VI U to the Gate VI T, together with the Towers VI hand VI $g$ which project from the East Wall. To still another period belongs the East Wall, from the Gate YI T to the Tower VI g.

The poorest style of masonry is seen in the West Wall, which, with the exception of portions repaired at a later time, consists of small unwrought stones. In the East Wall the blocks are larger and better hewn, while the best form of masonry appears in the South Wall and in the towers, where the great stones are cut into rectangular blocks and closely fitted.
12. The Projections. ${ }^{1}$ The wall of the citadel forms a great polygon, whose sides are of equal length and whose corners are clistinguished by advancing angles. These adrancing angles are a survival of the same style of masonry as is seen on a scale almost twice as large in the vast circumvallation at Gha, near Lake Copais -an architectural feature which shows a marked correspondence between the Mycenaean fortress of Boeotia and Mycenaean Troy. They occur also at Tiryns, in old Egyptian walls, and sometimes even in Greek walls of classical times. The projections in the walls of Troy vary in depth from 0.10 m . to 0.15 m ., and in a few cases to 0.30 m .
13. West Wall. ${ }^{2}$ Even though the West Wall shows
${ }^{1}$ Dörpfeld, Troja und Ilion, pp. 119-120. Cf. D̈̈rpfeld, Mitth. Ath., 1894; Meinrich, op. cit. p. 35; Tsonntas and Manatt, op. cit. pp. 370, 376; Noack, Mitth. Ath., 1894, pp. 425 ff. ${ }^{2}$ Dörpfeld, Troja und Ilion, pp. 114-115.
weaker construction than the others, yet it forms a strong defense. Its perpendicular superstructure is completely destroyed, while exposure to the air has caused such injury to the outside of the lower wall that we can scarcely distinguish a ressault, or advancing angle. Its scarp is abont 0.40 m . to every meter in height. We note in fig. 11 two essentially


Fig. 11. West Wall
Well-dressed blocks are shown at $a$, and irregular stones at $b$.
different portions of the West Wall. On the left (a) the stones are well-dressed and quadrangular, while on the right the masonry shows irregular blocks filled in with rubble. There can be little doubt that the ruder masonry is the older, while the more advanced style of building is a later restoration, probably contemporaneous with the building of VI A, since the repairing of the wall extends from the Gate VI U to the northwest corner of this structure.

14. East Wall. ${ }^{1}$ The frontispiece shows the strongly scarped substructure of the East Wall, rising 4 m . to 5 m . in height. A portion of the superstructure (e), belonging to the north side wall (b) of the Tower VI h, is seen above the city wall (a). In several places the upper citadel wall also can be distinguished by the small regular stones used in its construction. Figure 12 gives a clearer view of this East Wall, showing the style of wrought stone, the interstices, and the projecting angles. A small portion of the upper wall can be noted at $d$, while in the clistance is seen the Gate VI S.

The lower wall is about 6 m . high and 4.60 to 5 m . thick, with a scarp of something like 0.37 m . to every meter in height. It is rendered more firm and solid by the inward slope of the layers of stone. Above this massive substructure is built the upper wall, 1.80 m . to 2 m . thick, which rises to-day, in its best-preserved portions, 2 m . high. The stones of which it is constructed are small and quadrangular. They were used in its erection sometime during the existence of the VI City, since remains of clay brick in the great Tower VI $g$ show uumistakably that the entire superstructure originally consisted of this material. Throughout its whole extent the East Citadel Wall, which exhibits the same style of masonry from the Tower VI $g$ to the Gate VIT, curves at no point, but forms an immense polygon. Each side is about 9 m. long, and, projecting beyond its predecessor, makes a solidly constructed advancing angle.
15. South Wall. ${ }^{2}$ The South Wall, owing to the
${ }^{1}$ Dörpfeld, Troja und Ilion, pp. 110-119.
${ }^{2}$ Dörpfeld, Troja und Ilion, pp. 121-123.
greater measurements of its stone, is more stately in appearance than the East Wall. Its blocks, 1.50 m . long and 0.30 m . high, are well-wrought and so closely joined that no rublele is needed to fill the interstices. The scarp is about 0.23 m . to every meter in height. A small portion of this wall is seen in the foreground of fig. 25 , where we observe the welldressed rectangular blocks of stone. It is similar in its masonry from the Gate VI 'I on the south to the Gate VI U on the southwest, and was provided with the same kind of advancing angles as was noted on the East Wall.

It is a puzzling question to explain the difference in masonry as seen in the wall of our fortress. Did the builders so advance in their art while erecting this circumvallation of over five hundred meters that they were able to finish in well-dressed rectangular blocks of stone the wall which they had begun in rude Cyclopean style? Dörpfeld once inclined to this view, ${ }^{1}$ but now favors the belief that a uniform wall originally surrounded the whole hill, and during the existence of the VI City the east and south portions, which show the finest style of masoury, were entirely rebuilt.

## Tiie Gates

In the part of the city wall which is preserved there have been unearthed three great gates, together with a door leading to the Tower VI g. The East Gate is desiguated VI S, the South Gate VI T, and the West Gate VI U. There must have been atleast one other
${ }^{2}$ Dürpfeld, Mitth. Ath., 1894, p. 385.


Fig. 13. East Gate
The citadel wall is marked $\alpha$. Ruins of the VII Stratum are visible at $f$ and $c$, while at $h$ is seen the wall of the Athena Precinct (IX Stratum).
gate to the citadel, situated in the missing uorth wall. ${ }^{1}$
16. The East Gate. ${ }^{2}$ This gate is well preserved, and can be scen in fig. 12 and fig. 13. The wall of the city, coming from the north and forming a bowlike projection (h g fe in fig. 14) beyond the entrance, makes a veritable cul-de-sac, where an assailant approaching from the south wonk be hemmed in between both walls of the fortress before he could reach the gate ( a b). Such an arrangement, in a somewhat altered form, is well known to have existed at Mycenae and Tiryns.

In fig. 13 the reader will see on the left (a) the great East Wall of the city, partly covered by a fragment (f) of the gate of the VII Stratum. On the right the end of the other citadel wall incloses the gateway. The left corner is secu at $b$ and $c$, but the façade is hidden by the great square wall (h) which the Romans erected as the foundation of the East Hall of the Athena Precinct.

As we enter the passageway, which is about 2 m . broad, we see on our left the wall of the city extending over 5 m . until it ends (fig. 14) at the well-preserved corner (c). The right wall is preserved to a height of only 2 m , while above it (fig. 13) lie ruins (e) belonging to the VII Stratum. Its original height was at least 4 m ., since it must have had an elevation equal to that of the lower wall of the citadel. Beyond the bow-shaped gateway was the door,

[^17]of which nothing remains. The opening ( a b in fig. 14) is about 1.80 m . broad. The cross wall is only 1.20 m . thick, and is so loosely connected with both side walls as to form a striking contrast to the solid masonry of the fortress. A ramp ran from the gateway to the iaterior of the city, for at $v$ two steps are found leading to the terrace of the buildings VI E and VI Q. At the right and left is free access to


Fig. 14. Ground Plan of East Gate
the space between the circuit wall and the wall of the first terrace.
17. The South Gate. ${ }^{1}$ The great South Gate VI T was probably the principal gate of our city, for it is broader than the East Gate, and lies in the same direction as did the chief entrance ( F O ) to the II City. Likewise, even in Roman times, the propylaeum of the Athena Precinct was on the south. Here VI T

[^18]

opened upon the great plateau of the later lower town, and consequently was especially fitted by nature as an approach to the fortress.

We can note the position of this gate in fig. 15. Its ground plan, as it remained during the existence of the VI City, without the walls of later structures, is seen in fig. 16. The gateway is 3.20 m . to 3.35 m . in breadth, and is paved with blocks of stone, beneath which is a canal 0.50 m . deep and 0.30 to 0.40 m .


Fig. 16. Ground Plan of South Gate
wide for the carrying off of rain water. Since this entrance was in use during the time of the VII and VIII settlements, there is some doult as to whether the canal and pavement belong to the Mycenaean City. On its east side the gateway is flanked by the citadel wall ( d g ), 5 m . thick, while on the west there juts out beyond the citadel wall, which is here only 2.20 m . thick, a massive rectangular tower ( rlop ), constructed at a later period. In earlier times only a tower-shaped projection ( $\mathrm{s} p \mathrm{t} \mathbf{u}$ ) extended from the fortress. Two unwrought blocks of stone, perhaps
belonging to the VII Stratum and evidently intended to guard the corners, stand at the front angles (g l) of the gate.
18. The West Gate. ${ }^{1}$ We can note something of the form of the West Gate VI U in fig. 17, although


Fig. 17. Ground Plan of West Gate
it has suffered great destruction and later buildings have been erected upon it. The South Citadel Wall ( h g f ) ends abruptly at ef, while the West Citadel Wall (abc) terminates with equal abruptness at cd. The ends of these two walls form a gateway 4 m . wide. No tower projecting from the wall (b c) flanks the passage, as at the Gate VI T, although it is possible that such once existed and was later destroyed

[^19]when this entrance was walled up. The gateway bends toward the right, giving access by a gradual incline to the street between the South Wall and the building VI M, as well as to the first terrace of the citadel. A retaining wall ( $\mathbf{d k m}$ ), which borders the passageway on one side, is preserved only at its two ends. It is likely that there was a paved ramp at the corner ( m ). A wall serving as a doorsili and an erect stone of the door pillars ( $k$ ) show where probably the door inclosure ( $\mathrm{i} k$ ) must have been. We can infer that the breadth of the opening was something like 2.50 m . A piece of a canal (s) is seen within the passage.

During the time of the Vl City the gate must have been completely closed, as a wall between $\mathrm{c} d$ and fe indicatcs. This wall, on accomnt of its masonry, is to be assigned to the period of the VI Stratum; furthermore, we know that the inbahitants of the VII Stratum used the same wall in the construction of their bouses. The reason for walling up this entrance may have been that in the war which resulted in the destruction of the city it was found that the fortress could be more easily defended by reducing the number of gates.

The gateway VI U shows somewhat larger measurements than the two gates YIS and VI T; but we can hardly suppose that it formed the chief entrance, since the direction of VI T, as we have shown above, favored its being the principal gate to the citadel.

## The Towers

The three towers of the fortress are very similar in their masonry, and were doubtless later aulditions to
the citadel wall. Since the Tower VI $g$ contains some remains of its original brick superstructure, we are led to infer that it is older than the Towers VI h and VIi, which show no trace that their upper wall was ever built of anything luat stone. ${ }^{1}$
19. The South Tower. ${ }^{2}$ We have seen that the great rectangular Tower VI i (fig. 16) was erected later than the bastion ( $\mathrm{s} p \mathrm{tu}$ ), and that it projects from a part of the city wall which is only 2.20 m . thick. Within the tower has been found an inner room 5.70 m . long and, in the center, 5.30 m . broad. A door (a), which in later times was walled np, opened on the north. The purpose of the foundations (q) is not known, since they are not near enough to the center of the inner room to serve as a base for a supporting pillar. The sides of the tower are of varying thickness. The front wall is 4.40 m . broad, while the side walls are not over 2.20 m . The right wall, forming an angle at k , bulges out to a greater width, thus furnishing stronger protection for the corner ( g ) of the city wall on the east of the Gate VI T. The tower walls are preserved ouly to a height of 2 m . Consequently we can get no conception of the upper structure of either the gate or the tower. Two very remarkable stones ( m n in fig. 15), the purpose of which is unknown, are situated before the front wall of the tower. There can be no doubt that they must be assigned to the VI City.

[^20]20. The East Tower. ${ }^{1}$ The Tower VI h, erected to flank the East Citadel Wall, lies midway between the two gates VI S and VI T. It juts out 8 m . beyond the city wall and is over 11 m . in breadth. The tower forms a rectangle, of which the right half (defgin fig. 18) extends beyond the East Wall, while the left half (c a) rises higher, forming an upper story. Its


Fig. 18. Ground Plan of East Tower
masonry resembles that of the South Citadel Wall. The contrast between this style of building and that of the East Wall can be noted in fig. 19, where we see the scarped East Wall (a), the north (b) and the south (c) walls of the tower. It will be observed that the city wall (a) consists of smallcr and more irregular stones. On the right of the picture are to be seen two pieces of the upper story of the tower, consist-

[^21]ing of small but regular stones (d). The foundation is not so solid as that of the East Wall-a fact which has caused the rents visible in the tower walls at c. The thickness of the front wall (e fin fig. 18) is about 3 m ., while that of the side walls (de and gf ) is about 2 m . The existence of numerons holes in


Fig. 19. East Tower
both side walls leads us to assume that at the top of the tower a horizontal platform was supported by wooden timbers extencling lengthwise, on which were laid the strong floor beams. It is probable that upon these were placed planks and reeds, which were covered with a layer of earth. The lower inner room, which must have been about 3 m . high, extended to ithe outside wall of the citaclel, while the upper room reached some distance beyond, until shut in by the wall (ac).

Although the walls of the upper story of the tower are only about 1.22 m . thick, yet their strength was certainly sufficient, since tower walls were not so exposed to the attacks of a besieging host as was the wall of the citadel itself. A door (b) led into the upper story, but the lower story was inaccessible except by steps from above. The advanced style of masonry of the Tower VI h, seen in fig. 19, shows that it was one of the latest additions to the city wall.
21. The Northeast Tower. ${ }^{1}$ The great Northeast


Fig. 20. Ground Plan of Nortmeast Tower
Tower, seen in fig. 20, is the most stately tower of the VI City. It inclosed a great rock spring (B b), 4 m . square, while near by are several steps which led to the higher ground of the citadel.

[^22]This tower (fig. 21) was situated where the East Wall of the city ended on the north, and was entered by a door ( $\mathbf{f}$ ). In order that the passage might not be diminished when the door swung back, there was a deep niche immediately behind the entrance for the reception of the door-wings. Beyond this are four steps leading to the inside of the tower, where is the great spring ( B b), surrounded ly a wail 2 m . thick. At the left of the passageway, in the interior of the tower, are the steps (ba), which are not so well wrought as those within the gateway. These must have furnished communication between the tower and the interior of the citadel. The inhabitants of the city could descend these steps to reach the spring, or else, turning to the right, pass outside the wall, through the gateway. The lower part of the spring is cut out of the solid rock. The upper portion is built of small stones belonging to the VII Stratum, but traces have been found of an earlicr and thicker wall of large stones. The rock-hewn portion of the spring is presumably 7.50 m . deep, showing that the spring itself must have lain 10 m . below the VI City. The narrowest portion is 4.25 m . wide, while above and below this there was a slight increase in breadth. On the east and north the outside of the tower wall is in a good state of preservation. Aloove it, as we have observed, are remains of the earlier superstructure of unburnt brick.

This massive tower projects 8 m . beyoud the citadel wall, and is 18 m . broad. Its masonry (fig. 20), so compact and so polished on the outside, makes it seem strange that such a building can be ascribed to Mycenaean times, when we consider the rude Cyclo-


Fig. 21. Great Northeast Tower
On the left is seen the Roman wall, and on the right the steps of the VIII Stratum.
pean walls of Tiryns and Mycenae; ${ }^{1}$ but the same style of building in structures inside the citadel, where was found pottery characteristic of the best Mycenacan period, establishes the fact that the city was a fortress of the Mycenaean Age. The massive stones, with their close interstices and their wellwrought surface, are visible to-day in spite of exposure to the weather and in spite of the violent destruction which the town must have suffered.

The cross section of the north corner of the tower shows that the scarp in the lower portion, which is about 3 m . high, was greater than in the upper portion, which once may have had a height of 6 m . The increase in the scarp in the lower part of a fortification, such as is seen on the northeast surface of our tower, shows the technical skill of the old builder. Should we supply a slightly searped upper structure of brick, we should get a twice-broken line whose whole shape bears a marked resemblance to the Eiffel Tower.

In time of the Mycenaean City this massive tower, 18 m . broad, with its substructure 9 m . high, on which arose a perpendicular upper wall, dominated the whole northeast part of the citadel. The dwellers in the VII Stratum repaired the upper wall with fuarry stones, while the Greek settler's of the VIII Stratum built the steps beside the tower and the walls of small stones, which we can recognize on the right of fig. 20. Even at so late a date a portion of the Northeast Tower remained visible. But this last relic of the

[^23]Mycenaean Citadel was finally buried under masses of débris and the mighty walls of the Athena Precinct of the Roman Ilion.

## The Inner Citadel

22. VI A. ${ }^{1}$ The first buildings excarated lay on the


Fig. 29. Grouid Plan of VI A
western side of the city. It was in the year 1890 that the west half of the building VI A was unearthed, close to the citadel wall, and in 1893 it was completely laid bare. Figure 23 shows its west wall (b) lying beside the city wall (a). The foundations, which are in a fairly good state of preservation, give its ground plan as seen in fig. 22. The hall is 11.55 m . in length and 9.10 m . in breadth. Before this lies the antechamber of the same breadth and 4.25 m . deep. No

[^24]
traces of columns or bases of columns have been found either in the ball or in the antechamber. The several stones ( $\mathrm{a} b$ ) discovered in the upper half of the hall, to judge from their form and position, cannot have served as bases for pillars. Neither can we accept the view that wooden columns existed and were afterwards destroyed, for in that case some remains of their bases would have been found. Hence we must conclude that the roof, in spite of the great breadth of the hall, could not have been supported by interior columns.

A heap of ashes, partly buried under a house wall of the VII Stratum, was found in the center of the hall, and warrants the assumption that our building was a dweling house. The upper walls were probably erected out of fine building stone, and their complete destruction may be due to the fact that they were utilized loy the inhabitants of the VII Stratum as material for their houses. No traces of clay brick are to be found in this structure. The roof was probably horizontal, and built of earth resting upon a steep incline constructed of straw or similar material. We have no information as to the lighting of the apartment. Certainly there must have been a door between the hall and antechamber, but its size and form are unknown.
23. VIE. ${ }^{1}$ Te the north of VI A was discovered the great building VI B, fronting the southwest. Three walls of an antechamber and a small portion of a side wall of the hall are preserved. Since the

[^25]antechamber agrees with that of VI A, it is likely that the whole building also was similar to it. As the proportions of VI A were $11.55 \times 9.10 \mathrm{~m}$., we cau infer that the length of the hall VI B, which had a breadth of $11.85 \mathrm{~m} .$, must have had a length of about 15 m . Its walls are stronger and constructed of larger blocks of stone than are the walls of VI A. The length of these blocks ( $f$ in fig. 23) is over one meter, while the thickncss of the foundation wall is 2.10 m . Small stones were used for filling up the interstices. The slope of the hill necessitated a greater length for the northwest wall, in order that it might be made to conform to that of the opposite side. Consequently the antechamber exhibits the irregularity of two side walls of unequal length. This building also shows no trace of pillars, since the base of porous limestone, resembling those of Tiryns and Mycenae, which was found in this vicinity, cannot with any certainty be assigned to VI B or to VI A, or even to the VI Stratum at all.

The building VI B faces the citadel wall in such a way as to form in front of its antechamber a triangular space shut in by the citadel wall and the rear wall of VI A, thus making an opeu court. The whole arrangement correspouds closely to the house of Paris ( $\mathrm{Z}, 316$ ), which consisted of an cutle (conrt), doma (autechamber), and thatamos (hall).
24. VI M. ${ }^{1}$ The building VI M, which lies south of those previously mentioned, differs both in situation and ground plan from the other edifices. It is built on a terrace over 4 m . high, which was ap-
${ }^{1}$ Dürpfeld, Troja und Ilion, pp. 155-161.
proached by a broad road leading from the city wall. It does not have a hall and antechamber, but contains a number of adjacent rooms, as seen by the ground plan in fig. 24. The destruction of the upper wall leares no indication as to how these different apartments were connected.

The stately retaining wall (fig. 25) rises 5 m . high,


Fig. 24. Ground Plan of VI M
with four adrancing angles similar to those of the citadel wall. The distance between these projections is about 5.50 m ., which is about one-half the distance between the projections of the city wall. The masonry resembles that of the South Wall of the citadel. Huge well-wrought rectangular stones are placed at the corners. The interstices are filled with rubble. The upper portion of the structure has suffered considerably from exposure to the weather. So great has been the injury from this cause that the sharp corners are worn

off and the stones have become almost shapeless. The under portion was probably protected by the ascending roadway, which ran between the retaining wall and the city wall. This must have been built to a greater height during the existence of the two periods of the VII Stratum, and in the time of the VIII Stratum it probably concealed the whole structure. The western corner ( a in fig. 24) is in a good state of preservation; but the eastern corner (f), which chanced to be unearthed by Schliemann in 1872, was later destroyed.

The several inner rooms are shut in by the great retaining wall and the side walls. The large hall ( t ) is over 13 m . deep, while the rooms ( s and r ) have a depth of ouly 5 m . It is not likely that the walls which surround the room ( $n$ )belong to the VI Stratum. The massive steps at the north of the building, with the two inclosing walls, ascended to the second terrace of the citadel.

The presence of a scarped surface on the south wall, near the steps, indicates that there was an open court at $\mathbf{k}$. The communication between this court and the inner rooms, as well as the connection of the rooms with each other, is mknown. A canal leading through the west wall, and a great pithos, were found in the room (r). The hall (t) was cut into two sections (h and i) by a poorly built cross wall. In the former (h) were unearthed six great pithoi, and in the latter (i) a strangely formed cylindrical vessel, 0.80 m . in height and 0.40 m . in diameter, as well as numerous millstones and about fifty weaving implements. These finds would indicate that the building was a dwelling house.

The wall on the north of the steps (m l) may belong to another building designated VI N , but as to its form and position we have no indication.

Both on the west and east of VI Ma ramp led to the inner part of the citadel. The buildings of the VII Stratum are built over the western ramp which is still to be recognized in the layer of small stones and earth out of which it was constructed. The east


Fig. 26. Ramp of Mycenaean Troy above the Wall of the V City
ramp was partially destroyed by the great north trench dug by Schliemann in 1872, ${ }^{\mathbf{I}}$ and its eastern portion alone remains. Under the later masoury of the VII and IX Strata, a little to the west of the bit of wall VI L (seen in the square 7 E in the Plan of the Citadel), is a limestone pavement. The course of this road, designated $b$ in fig. 26 , lies above the wall (a) of the V Stratum. The circular piece of wall, VI L , belongs to our city, and may mark the place where
the road leading from the Gate VI T turned northward in order to reach the ramp that led toward the summit of the acropolis.
25. VI G. ${ }^{1}$ Passing toward the east side of the citadel, we find small ruins (VI K, VI H, VI J) of the walls of buildings discovered at the east of the unexcarated portion that lies to the north of the Gate VI T. The first important structure that confronts us is VI G, which has been cut in twain by the great southeast trench dug by Schliemann in $1873 .{ }^{2}$ On the northeast of this treuch a rectangular piece of wall, with an inner wall beside it, is preserved. Of the antechamber, only the small portion remains which lies at the southwest rim of the trench. The same trench may have destroyed also the cross wall which separated the antechamber from the hall. If this be so, our building, which faced the southwest, must have consisted of an antechamber and a large ball, 11 m . long and 6 m . broad. Behind this was a small apartment that might have been used for a rear room, were it not for the fact that the northeast wall is closed, thus affording no passageway. In this room, as well as in the hall, several pithoi have been discovered. The masonry consists of small, poorly wrought stones, and resembles that of the East Wall of the city.

Southeast of VI Ga portion of wall belonging to the VI Stratum has been found lying close to the citadel wall, but we have no indication of the purpose which it served.

[^26]26. VI F. ${ }^{1}$ The ground plan of the building VI F (fig. 27), which is probably a dwelling house, forms a trapezoid. Its single ball is about 8.50 m . in breadth. Its west side is 11.50 m . long, its east side 12 m . long. The walls are not of equal thick-


Fig. 27. Ground Plan of VI F
ness, for the east wall ( $\mathrm{b} e$ ) formed the retaining wall of the high terrace where the building stood, and consequently it is built to a thickness of 2.60 m ., while the other walls measure only 1.50 m . The outside of this retaining wall shows two advancing angles, somewhat greater than those in the retaining wall of VI M and in the outer wall of the city. There are two doors-the larger (i), 2.07 m . broad in the south wall; the smallcr (h), 1.40 m . broad in the

[^27]west wall. The former (i) was walled up in later times. The whole structure shows a style of masonry inferior to that of the other buildings of the VI City. Its poorly wrought stones are in striking contrast to the finely polished blocks of the adjacent building, VI E. A horizontal layer of earth, whieh appears between the layers of stone at the outside of


Fig. 28. Ground Plan of VI E
ef, indicates that a horizontal wooden beam was once built into the masonry. A similar architectural device is seen in the court wall of the palace of Mycenae, as well as in some of the buildings of the II Stratum.
27. VI E. ${ }^{1}$ The stately building VI E has a form (fig. 28) similar to the one which we have just discassed, and, like it, was probably a dwelling house.

[^28]The large inner room is 6.40 m . broad. The length of the east wall is 9.80 m. , and that of the west wall 10 m . The excellent masonry (seen in fig. 29) consists of polished stones, closely joined together, forming a marked contrast to that of the Cyclopean walls of Tiryns and Mycenae, and indicating that the structure must have been erected during the later period of the Mycenaean City. There is a trace of a door (i) in the corner of the southwest wall, but it leads, not into an open space, but to the door ( k ) of the building VI C. Such a position makes it uncertain whether this door belonged to the VI City. Perbaps the original entrance was in the north wall; but, owing to the ruined condition of this wall, it cannot be distinguished.
28. Remaining Buildings of the First Terrace. ${ }^{1}$ To the north of VI E are the remains of two buildings, VI Q and VI P, which undoubtedly were situated on the broad road beside the city wall. Thcir ground plan must have been similar to VI E and VI F. The north corner and two pieces of the side wall of VI Q are preserved. The wall ran parallel to the city wall, and must have been a scarped retaining wall, thicker than the others. Its masonry shows that the building belonged to a later period of the VI City. The breadth of the inner room was about 6.50 m . and its length 15 m . A broad ramp led from the Gate VI S, between the buildings VI Q and VI E, to the center of the citadel. Close by the north corner of VI Q a single wall is found belonging to a building which is designated VI P.

All these buildings which we have described-i.e.,

[^29]
(80)

VI A, B, M, G, F, E, Q, P-lay on the first terrace, which must have contained a total number of at least eighteen houses.
29. VI C. ${ }^{1}$ The remains of the buildings which were built upon the second terrace are very scauty. The ground plan of the structure VI C alone can be determined. One of its walls was injured by the great trench which was dug in 1882. The building consists of a large hall 15.30 m . long, and, in the western portion, 8.40 m . broad. Whether it formed a trapezoid like VI E and VI F, with its greater width on the east, cannot be determined, owing to the destruction of the north wall. In front of the hall is a very small antechamber facing the west. The masonry of the foundation is of unwrought stone. The walls vary in thickness, as seen in fig. 30. The east wall, which is the strongest, has a thickness of about 1.90 ml ., while the thickness of the side walls is 1.40 m. , and that of the west wall only 1 m . The greater strength of the east wall may be due to the fact that it served as a retaining wall of the second terrace. The roof beams must hare rested on the two side walls, a fact which can account for the weakness of the west wall. Within the large hall a stone base (f) has been found in situ, which is the only sure indication of columns in all the buildings of the VI City. Its position shows that there must have been two other bases at $\mathbf{g}$ and h , in order to give a row of supporting columns in the middle of the building. The base, which is cylindrical, is 0.28 m . high and 0.62 m .
${ }^{1}$ Dörpfeld, Troja und Ilion, pp. 1\%0-175. Cf. Dörpfeld, Troja, 1893, pp. 22-25; Koldewey, Neandria, 51. Programm zum Winkelmannsfest, 1891.
in diameter at the bottom, and 0.57 m . at the top. It rests upon an irregular stone foundation, and must have supported a wooden column of only 0.38 m . in diameter. There is a door in the east wall, designated ed in the ground plan, but it is donbtful whether it belongs to the time of the Mycenaean City. We should expect a door in the west wall, opposite the line of columns, between the hall and the antechamber, but no trace of it is found. Such was the


Fig. 30. Ground Plan of VI C
position of the door in the temple at Neandria, which shows so many points of resemblance to our building that Dörpfeld suggested that VI C may have been a temple.

The remains of the other buildings of the VI City are so scanty that no idea can be formed of their plan or situation. It is likely that these ruins are situated on the second terrace. In the center of the citadel no part of the Mycenaean fortress remains.
30. Streets. ${ }^{1}$ A description of the streets leading from the gates to the ascending terraces of the citadel has been given in the discussion of the various buildings. As we enter through the gates we find ourselves on the circuit road which lies between the city wall and the honses of the first terrace. Originally this wide avenue may have extended around the whole hill, but in later times it was interrupted by buildings, such as VI A, lying adjacent to the city wall. Steep ramps led to the upper terraces. The position of three of these in the Plan of our Citadel is at B 6, D 7, and J 4. Others surely existed, but are either partly destroyed or not fully excarated. Small streets, some of which ran parallel to the city wall, and others in the general direction of the ramps, separated the houses. Near the South and East Gates the parement is constructed of stone slabs. The ascending road in the square D 7 was built of stones and lime. Two other ramps were paved with small stones and earth.
31. Springs. ${ }^{2}$ Natural springs furnished water in the time of Mycenaean Troy. Deep wells were constructed within the citadel. Several belonging to the time of the VI City and of the later settlements have been found. The great Northeast Tower (VI g) guarded the most important of these wells ( $\mathrm{B} b$ ), which has been described in the discussion of the tower. On the broad road between the East Wall of the city and the building VI F a second well (B c) has been unearthed, which is undoubtedly of the Mycenaean

[^30]period. At the top are parts of two large pithoi, placed one above the other and walled in with small stones. This portion lay above the level of the VI City. Underneath the upper structure the well was built of small stones, while below the masonry the pit was hewn deep into the rock. We can infer that this spring was used also by the inhalitants of the VII City. A third well has been found between the building VI Q and the Tower VI g. There is some doulst as to its belonging to the VI Stratum. It consists of a rectangular pit, completely walled in, about 13 m . deep, with a farther extension into the rock of 1.50 m . Au underground passage about 3 m . below the level of the IX Stratum comnected with the shaft, thus indicating the height at which the spring once ended. During the existence of the LX City a small round temple of marble stood over the mouth of the well. The excavations show that wooden frames were inserted in the masonry where the wall rests upon the rock, as well as higher up. This introduction of wooden beams into stone work we have noted already in the retaining wall of VI F.
32. Review of the Citadel. ${ }^{1}$ What do we note in the Mycenaean City? We see (1) an imposing circuit wall, showing earlier and later styles of building; (2) resting on this massive substructure a perpendicular upper wall, built originally of brick and later of stone; (3) three strong and mighty towers flanking
${ }^{1}$ Dörpfeld, 'Troja und Ilion, pp. 182-183. Cf. Dürpfeld, Troja, 1893, pp. 9-13; Dürpfeld, Mitth. Ath., 1894, pp. 380 ff.; "'Trojanische Frage durch die Ausgrabungen gelöst." Dürpfeld, Lecture before Harvard University, October 12, 1896.
the city wall; (4) three great gates, one of which was walled up during the existence of the city, and a door affording access to the Northeast Tower; (5) individual dwellings within the citadel, separated by broad and narrow streets; (6) concentric terraces, ascending toward the center of the city; ( 7 ) a broad circuit road between the first terrace and the city wall, with ramps leading up to the summit of the acropolis; (8) several wells within the citadel.

The demolition of the upper wall of the city, the ruin of the gates, and the destruction of the walls of the inner buildings could have been wrought only by hostile hands. In several places are seen traces of an extensive conflagration. Alrout the date of the great catastrophe we can judge ouly approximately. The presence of Mycenaean pottery establishes the fact that the city belonged to the period of Mycenaean culture. The damage to the walls from exposure to the weather during the existence of the VI City and the gradual increase in the elevation of the ground between several buildings show a period of long duration. We can conjecture that the city flowished between 1500 and 1000 B.C., a date which corresponds to that given by tradition for the fall of Homer's Troy.


Fig. 31. Circle of Shaft-Graves at Mycenae

## THE MYCENAEAN CIVILIZATION

33. Extent. What do we mean by "Mycenaean pottery," "Mycenaean Troy?" The term "Mycenaean" is roughly applied to those palaces, dwelling houses, tombs, pottery, reapons, gems, and ornaments which exhibit a similarity, more or less striking, to those found on the citadel of Mycenae-monuments which evidently are the work of one and the same race. Recent excavations have shown the extent of Mycenaean influence to be broader than scholars of a few years ago even dreamed of believing. We renture to burden the reader with a list of some forty localities which unmistakably had come in touch with this civilization. It is noteworthy how many districts mentioned in the IIomeric poems are here included. In addition to the monuments at Mycenae, Tiryns, and Hissarlik, ${ }^{1}$ Mycenaean remains have been found at the Argive Heraeum, ${ }^{2}$ Nauplia, ${ }^{3}$ Midea ${ }^{4}$ (near Nauplia), Asine ${ }^{5}$ (in Argolis), Kampos ${ }^{6}$ (near ancient
[^31]Gerenia), Arkina ${ }^{1}$ (six hours from Sparta), Vaphio ${ }^{2}$ (the ancient Pharis; cups of exquisite workmanship found), Pylus ${ }^{3}$ (Nestor's home), Phigalia, ${ }^{4}$ Masarakata ${ }^{5}$ (in Cephallenia), Megara, ${ }^{6}$ Menidi ${ }^{7}$ (seven miles from Athens), Spata ${ }^{8}$ (nine miles from Athens), Thoricus ${ }^{9}$ (in Attica), Acropolis of Athens ${ }^{10}$ (prehistoric palace), Halike ${ }^{11}$ (ancient Halae Aixonides, southeast of Athens), Kapandriti ${ }^{12}$ (ancient Aphidna), Eleusis, ${ }^{13}$ Salamis, ${ }^{14}$ Aegina, ${ }^{15}$ Calauria, ${ }^{16}$ Gha ${ }^{17}$ (near Lake Copais, identified by some with the Homeric Arne; extensive remains of prehistoric palace found), Orchomenos, ${ }^{18}$ ("'Treasury of Minyas"), Thebes, ${ }^{19}$ Tan-

[^32] History, r0; Brunn, Griechische Kunstgeschichte, I, 46.
${ }^{3}$ Frazer, op. cit., V, 608; Bulletin de Corresp. Hellénique, 20, 388.
${ }^{4}$ Milchöfer, Anfünge der Kunst in Griechenland, 54.
${ }^{5}$ Wolter's, Mitth. Ath., 19, 488.
${ }_{6}^{6}$ Furtwängler und Lüschcke, Mykenische Vasen, 53.
${ }^{7}$ Frazer, op. cit., III, 137; Lolling, Mitth. Ath., 12, 139.
${ }^{8}$ Frazer, op. cit., III, 143; Mitth. Ath., $2,82$.
${ }^{9}$ Fraser, op. cit., III, 138, $\Delta \varepsilon \lambda \tau i ́ o \nu ~ a ̀ \rho, \chi a l o \lambda о \gamma є к o ́ v, ~ 1890, ~ 159 . ~$
${ }^{10}$ Tsountas and Manatt, op. cit., p. 8.
${ }^{11}$ Ibid., p. 9.
${ }^{12}$ Frazer, op. cit., III, 144.
${ }^{13}$ Furtwïngler und Löschcke, op. cit., 40; Gazette archéologique, $8,248$.
${ }^{14}$ Tsomntas and Manatt, op. cit., 387.
${ }^{15}$ Ibid., 388-394; Erans, Journal of Hellenic Studies, XIII, 195.
${ }^{16}$ Frazer, op. cit., V, 596; Mitth. Ath., 20, 267.
${ }^{17}$ Frazer, op. cit., V, 121; Tsountas and Manatt, op. cit., 374.
${ }^{18}$ Frazer, op. cit., V, 188.
${ }^{19}$ Furtwängler und Lïschcke, op. cit., 43.
agra, ${ }^{1}$ Lebadea, ${ }^{2}$ Delphi, ${ }^{3}$ Daulis, ${ }^{4}$ Goura (Phthiotis), Dimini ${ }^{5}$ (three miles to the west of Volo, the ancient Iolcus), Melos ${ }^{6}$ (four superimposed settlements, the last of which is Mycenaean), Ialysus ${ }^{7}$ (in Rhodes), Thera, ${ }^{8}$ Crete ${ }^{9}$ (prehistoric palace at


Fig. 32. False-Necked Amphora frou Crete
Cnosus, and extensive Mycenaean remains at Goulas, Gortyna, Courtes, Karousi, Marathokephala,

[^33]Anavlochus, Erganos), Cyprus, ${ }^{1}$ Egypt, ${ }^{2}$ Sicily, ${ }^{3}$ Italy. ${ }^{4}$
34. Pottery. Of Mycenaean pottery we distinguish two main types: the older dull type, ornamented with linear decorations-e. g., spirals, parallels, circles, curved and straight lines-painted in dark red, violet, brown, but sometimes white; the later lustrous type, adorned with geometric patterns, bands, spirals, but more generally with scenes from marine life-e. g., the starfish, the cuttlefish, seaweed, etc.-sometimes with birds, and later with animals and men, brilliantly glazed in red, brown, and less frequently in white.
35. Date. The diseoveries now being made in Crete seem to point to that island as the home of the Mycenaean cultus. The prestige of Mycenae may have followed the decline of Cretan supremacy. At any rate, 2000 B.C. is not too early a date at which to place the most flourishing period of this civilization in Crete, for Mycenaean remains have been found in Thera buried under volcanic débris of an eruption of about 1800 B.C. ${ }^{5}$ Legends of a vast Cretan empire are probably reminiscenees of that mighty maritime nation, once supreme on Mediterranean waters.

[^34]
## THE MYCENAEAN AGE AND THE HOMIERIC POEMS

Tife Mycenaean Age is a bronze age, and in a general way is similar to the bronze ages of Northern Europe. It offers many problems which have not yet been solved. Each year brings numerous and important discoveries. It is not our purpose to give even a superficial presentation of this civilization, but only to discuss its main characteristics, with ref.. erence to life as pictured in the Homeric poems. ${ }^{1}$
36. Architecture. ${ }^{2}$ We can classify under the head of the architecture of this age those mighty walls, usually designated Cyclopean, their massive gateways, and the walls which even at this time were constructed of uniformly fitted stones. Here, too, belong the palaces, with wooden columns resting on stone bases, and the so-called "beehive" tombs (fig.

[^35]
Beenive 'Tomb
So-Called Treasury of Atreus at Mycenae.
33), as well as the shaft-tombs (fig. 31) and the chambergraves which were cut horizontally into the hillside.
37. Art. ${ }^{1}$ Under the head of art we can classify the archaic stone sculptures, such as the Lions' Gate at Mycenae (fig. 37), the engraved stones, and the inlaid and embossed work in metal. This work reached its perfection in the five inlaid dagger-blades (fig. 34) from the shaft-tombs at Mycenae, and the two embossed gold cups from the beehive tomb at Vaphio, near Sparta (fig. 38). While in these works may be seen some traces of Oriental influence, yet true originality and entire independence are shown in the decoration and painting of the Mycenaean
${ }^{1}$ Heinrich, Troja bei Homer und in der Wirklichkeit, pp. 14-16. Cf. Furtwängler und Löschke, Mykenische Vasen, 1886; Tsountas and Manatt, The Myceuaean Age, pp. 217-267; Dumont et Chaplain, Les céramiques de la Grèce propre, pp. 3-66; Frazer, Pausanias, Vol. III, pp.111-113; Ridgeway, Early Age of Greece, Vol. I, pp. 13-16.


Fig. 34. Inlatd DaggerBlade fron Mycenae
pottery. Such pottery, together with the chambertombs and beehive tombs, constitutes the most certain and decisive marks of this civilization. The vases, with a glossy painting which exhibits every variety of shade from yellow to dark brown, show such uniformity in technique, form, and ornamentation that they must have had a common source, whence they were carried by traders to the wost distant shores of the Mediterranean Sea.

Since this characteristic pottery (fig. 35), in addition to the monochrome vessels of Trojan work, was found in the VI Stratum at Hissarlik, we can conclude that this settlement must have come in touch with the Mycenaean world.
38. Writing. ${ }^{1}$ There is no longer any doubt that a dereloped form of written characters existed in the Mycenaean age. A. J. Evans has shown from the rich finds which he has made in Crete that there are tro different styles of writing, the older of which is pictographic and reminds us of the Egyptian hieroglyphics, while the later is linear and resembles somewhat the alphabets of Cyprusand Western Asia. Symbolshave been found on the handles of an amphora and of a stone ressel from Mycenae, ${ }^{2}$ on two amphorae from the beehive tomb of Menidi, in Attica, ${ }^{3}$ on a threehandled ressel from Nauplia, ${ }^{4}$ and on a stone pestle

[^36]

Fig. 35. Pottery from VI Stratum
I, II, III are imported Mycenaean ware. IV, V are Mycenaean forms imitated in Trojan monochrome. VI is a different style of imported pottery resembling the island art of the pre-Mycenaean period. YII shows Mycenaean flower motive in Trojan technique. VIII, IX are native Trojan ware.
from Mycenae. ${ }^{1}$ The linear signs show a striking similarity to those found by Flinders Petrie on the fragments from Kahun and Gurob, in Egypt. ${ }^{2}$ Twenty out of thirty-two are exactly similar; about fifteen resemble the signs of the Cypriote syllabary. While the linear style of writing belongs to Mycenaean times, the pictographic signs are of much older origin, and are assigned by Evans to a date as early as the third millennium before Christ. With the introduction of the later style of writing the older did not disappear, but the two systems overlapped each other.

In the excarations of Schliemanu in the year 1890 there was unearthed in the VI City a brown terracotta whorl, ${ }^{3}$ on which was an inscription that Professor Sayce pronounced to be "a splendid instance of Cypriote epigraphy." And even in the early period of the II City ${ }^{4}$ there are numerous seals and whorls (fig 36), with symbols which bear close resemblance to those found by Evans in Crete.
39. Who Were the Authors? ${ }^{5}$ The question now arises: "Who were the bearers of this civilization?" The Iliad shows such a high development in language and verse that its composition must have been going on for a long period. It indicates that the Greeks,

[^37]

Fig. 36. Spindle Whorls
even at this time, were at the height or in the decadence of the Mycenaean civilization. ${ }^{1}$ Furthermore, the discoveries reveal the fact that Cyprus, ${ }^{2}$ before the beginning of the first millennium, had been settled by people bearing the Mycenaean culture.

If we assume that the civilization was foreign, then must the Greek hero-tales become unintelligible. When Homer speaks of Tiryns and Mycenae, "rich in gold" ( $\gamma, 305$ ), of Amyclae ( $\mathrm{B}, 584$ ), of Boeotian Orchomenos (B, 511; $\lambda, 284$ ); when he mentions the tale of the Argonauts ( $\mu, 79$ ); when he brings Crete into touch with the royal house of Mycenae ( $\mathrm{I}, 230 ; \tau, 172$ ) ; and when he has the blind bard Demodocus sing of the great events which occurred before the walls of Troy $(\theta, 44)$, the poet undoubtedly refers to Mycenaean times. It is altogether inconceivable that the singers of the Homeric times, in their recital of glorious deeds, would have magnified the achievements of barbarians. Rather is it true that the pride which everywhere appears in the Homeric epic extols the exploits of the ancestors of the Greeks. ${ }^{3}$

The heroic age of the Homeric poems coincides essentially with the Mycenaean civilization, and the chief heroes were princes of people who possessed Mycenaean civilization. Thus we are led to infer that the bearers of this civilization, at least on the mainland, were largely Greeks.

Tsountas has shown that two strata of Mycenaean

[^38]population are to be distinguished in Argolis, the older of which is the Danaans and the younger the Achaeans. ${ }^{1}$
The Danaans are associated by tradition with Argos and the seacoast. Their ancestor, Danaüs, is closely connected with the hydrography of Argolis, as the myth of the Danaides illustrates. ${ }^{2}$ Probably the Danaans originally dwelt in pile villages and founded Tiryns, which was once surrounded by swamps. The Achaeans lived in and around Mycenae in the mountainous country to the north. These two people came into conflict with each other. A friendly settlement seems to have been reached, the Achaeans remaining masters of the upper country without expelling the Danaans.

According to legend, Mycenae was founded by Persens, a descendant of Danaüs of Tiryns, and his descendants ruled in Mycenae until the time of Eurystheus; then the sovereignty passed to Atrens and Thy-estes-i.e., to the Achaeans.

From the fact that the citadel at Mycenae shows two periods of construction-an older, in which the wall had an entrance similar to that of Tiryns, and a later, in which the citadel was extended and the Lions' Gate was built-Tsountas infers that the earlier period, to which must be assigned the shaft-graves in the so-called circle of graves on the acropolis, corresponded to the founding by Perseus, and that the later, with the beehive tomls situated outside the

[^39]

[^40]citadel, corresponded to the rule of the Atridae. ${ }^{1}$

A people very closely related to the Danaans were the Minyans, who were bearers of Mycenaean civilization and were the founders of Orchomenos, on Lake Copaïs. The influence of this race is seen not only in Boeotia, butalso in Laconia, on the island of Thera, and at Thoricus in Attica. Heinrich suggests that the names Minyas and Minos show something more than an accidental similarity. In that case the remains of Mycenaean civilization which havo been found, as wo havo seen, in such great abundance in Crete would Jring that island into the circle of countries inliabited by the Minyans. ${ }^{2}$

The genuine Mycenaean citadel, Gha, ${ }^{3}$ on Lake Copaïs, is quite similar in construction to Tiryns which was originally surrounded by swamps. It stands in closest relation to the draining of Lake Copain by the Minyans, who converted the whole region into a fruitful and cultivated soil. In this Cyclopean structure some archaeologists recognize the Homcric Arne, mentioned in the Catalogue of the Ships (B,507). Only quite recently has an English stock company completed the work, begun by the French, of draining the lake. The results show the great system of drainage of this Minyan citadel. These ancient people turned the water of the lake, by means of three great stone canals which are partly preserved, into the

[^41]
natural conduits existing in the northeast. Such a Work could not have been executed save by a people who had thousands of slaves under their direction. A line of Mycenaean fortifications on the northeast guarded the outlets, since any obstruction would have been disastrous.

There can be no doubt that the possessors of the Mycenaean culture were a seafaring people. This is shown by the prominent place given to marine plants and animals in Mycenaean ornamentation. The discoveries on the islands and coast of the eastern Mediterranean Sea have widely extended our view of Mycenaean civilization. This influence, as we have scen, spread to Troy, while in Crete have been found not only remarkable ruins of palaces and beehive tombs, but also bronze weapons, false-necked jars, stone vessels, intaglios, and other objects in great abundance. Mycenaean pottery has been discovered even in Egypt, at Gurob, dating probably from the time of Amenophis III (circa 1440 B.C.), at Tel-el-Amarna, dating from circa 1400 B.C., and at Kahun, dating from circa 1100 B.C. A fresco from the tomb of Rameses III (circa 1200 B.C.) shows the familiar "false-necked" amphorae. On the other hand, at Mycenae have been found porcelains from Egypt, with the cartouche of Amenophis III, and a scarab of the same king, and another engraved with the name of his wife Thi, while at the Argive Heraeum were unearthed several scarabs of Thothmes III. ${ }^{1}$

This rich civilization seems to hare received a sudden check on the mainland of Greece. There is no

[^42]further development in artistic form or teehnique, such as we admire in the gold cups from Vaphio, the gold dagger-blades from Myeenae, and the eharacteristie pottery. This interruption may be accounted for by the invasion of a northern tribe into the Peloponnesus. According to tradition, such an invasion was made by the Dorians about 1200 B.C. ${ }^{1}$ In Crete alone there is no evilence of this interruption, since that island could be but remotely affected by


Fig. 39. Kyanos Friezf from Palace at Tiryns
such a movement. ${ }^{2}$ But the Mycenaean civilization did not disappear without extending its influence among the invaders. ${ }^{3}$

The Homerie world stands in elose relation to the Mycenaean age. Such a palace as that at Tiryns furnishes us a fair specimen of those princely abodes described in the Odyssey. Here we find the gates, the vestibules, the courts surrounded with columns, the men's hall, the women's apartment, and even the bath room. The cornice of blue glass paste, or hya-

[^43]nos, such as adorned the halls of Alcinoüs, is recognized in a similar ornamentation (fig. 39) in the palace at Tiryns. A gold cup (fig. 40) from Mycenae, with dores above the handles, reminds us of the golden cup of Nestor described in $\Lambda, 632$.


Fig. 40. Gold Cup from Mycenae
40. Armor. ${ }^{1}$ The discovery of swords and spearpoints, as well as battle scenes and hunting scenes portrayed on Mycenaean objects, furnishes us a fair picture of the armor of Mycenaean times. The large Mycenaean shield (fig. 34 and fig. 41) extended from
${ }^{1}$ Heinrich, Troja bei Homer und in der Wirklichkeit, pp. 22-27. Cf. Reichel, Homerische Waffen, 1901; Ridgeway, Early Age of Greece, Vol. I, pp. 299-326; Tsountas and Manatt, The Mycenaean Age, pp. 191-216; Hellig, Das homerische Epos aus den Denkmïlern erlïutert, 1887; Max Müller, Asien und Europa nach altägyptischen Denkmälern, 1893, pp. 353 ff .
the neck to below the knees of the wearer. It was suspended by a strap ( $\tau \epsilon \lambda a \mu \omega ́ v, \mathrm{~B}, 388$; E, 796, etc.) from the left shoulder, and was managed partly by means of this strap and partly by means of the horizontal stay (кav́v, ©, 193; N, 407). Perpendicular to this stay, which ran crosswise from one edge to the other, was a second stay running lengthwise, which gave stability. The shield was covered with layers of oxhide. The center of gravity lay in its lower half, thus greatly facilitating its manipulation. The shield, when not in use, could be drawn behind the back by means


Fig. 41. Shield-Model from Spata
of a thong. The hero with such heavy armor frequently used the war chariot to pass from one place to another on the battlefield.

This great shield we find pictured in the Homeric poems. It was "the man-encircling shield" ( $\dot{\alpha} \sigma \pi i s$ ад $\mu ф \_$фо́т $\eta, \mathrm{B}, 389 ; \Lambda, 32 ; \mathrm{M}, 402 ; \mathrm{Y}, 281$ ), "the shield reaching to the feet" ( $\pi о \delta \eta \nu \epsilon \kappa \eta$ 's, $O, 646$ ). Hector returning home from the battle carries it upon his back, and its edge strikes his neck and ankles ( $\mathrm{Z}, 117$ ). A Mycenaean shield of colossal size, like a tower, is
 $219 ; ~ \Lambda, 485 ;$ P, 128).

Besides the long shield, there may have been a semicylindrical shield, as seen in fig. 42.

The use of the small round shield required the wearing of a breastplate, but with the large shield heary armor would have been unnecessary.

The Homeric greaves ( $\kappa \nu \eta \mu i \hat{\delta} \epsilon \varsigma$ ) were gaiters of cloth or leather, worn around the leg in order to prevent


Fig. 42. Gold Ring fron Silaft-Grave IV at Mycenae
the chafing of the shin against the great shield. They were provided with metal guards, specimens of which have been found in the Mycenacan graves. The greaves which Hephaestus made for Achilles were constructed of tin.

The Mycenaean helmet (fig. 43) was of leather, overlaid with metal. It contained no visor, but was ornamented with a tuft of horsehair ( $\lambda$ óosos), hornlike projections ( $\phi \dot{\lambda} \lambda o$ ), and with knobs of metal (фádapa). Often the leather helmet was adorned with rows of boars' teeth, as in the case of Meriones (K, 263). A collection of such teeth has been found in the fourth grave at Mycenae.

The offensive weapons of Mycenaean times were of
bronze. The lliad, with the exception of $\Delta, 123$, and $\Sigma, 34$, mentions only bronze swords, lances, and arrows. ${ }^{1}$ The representations on the Mycenaean ormaments exhibit a striking correspondence with the earliest portions of the Homeric poems.
41. Dress. ${ }^{2}$ It is probable that in Homeric times


Fig. 43. Warrior Vase from Mycenae
the undergarment of the men (zomu) corresponded to that worn by the hmoters in fig. 34. The long chiton of white lineu can be recognized in a Mycenaean vase of the so-called third style. ${ }^{3}$ Over this was thrown the woolen cllaina, generally fastened with a buckle.

The principal garment of the women was the long robe ( $\pi$ ध́ $\bar{\pi} \lambda$ os or é éavós) fastened on the shoulder by a

[^44]brooch ( $\pi \epsilon \rho o ́ v \eta$ ) like the Doric chiton, while about the waist was worn a girdle. But Mycenaean monuments (the two gold signets and the stone tablet from Mycenae, the engraved gem from Vaphio) show a dress tightly fitting the upper portion of the body (fig. 44) and trimmed below the waist with flounces. It is likely that the body of the garment was buttoned. ${ }^{1}$


Fig. 44. Gold Signet from Mycenae
Although Schliemann found no trace of brooches in the shaft-graves at Mycenae, yet the discovery by the Greek Archaeological Society of three kinds of brooches in the lower town may indicate that the transition from the older dress seen on the monuments to the garment fastened by the fibula occurred during Mycenaean times.
${ }^{1}$ Tsountas (op. cit. p. 63.) suggests that several of the socalled spindle whorls on account of their small size and frequent occurence are to be regarded as buttons.
42. Disposition of the Dead. ${ }^{1}$ In the Mycenaean age the dead were buried. This custom rested upon the primitive cultus of the dead. In Homer, on the other hand, the dead were burned on a funeral pile, and a mound erected in their honor, an insignificant mark of respect ( $\gamma^{\prime} \rho a s$ $\theta a v o ́ v \tau \omega \nu$ ) compared with the Mycenaean method of burial. Traces of the divine regard in which the dead were held in Mycenaean times are surely manifest in the magnificent funeral celebration which Achilles prepared for Patroclus. The slaying of the twelve poble youths by Achilles at the funeral of his friend is based on the soul cultus of the past time. It seems likely that the bodies buried in the shaft-graves at Mycenae were embalmed in a sort of crude way. To this custom, apparently, points the expression $\tau a \rho \chi$ úcuv ('bury"), occurring three times in the Iliad, and probably, like $\tau a \rho \iota \in \epsilon \in \epsilon v$, originally having reference to the preservation of the body. ${ }^{2}$
43. The Homeric Troy. In consequence of the clear connection between the earlier parts of the

[^45]Homeric poems and Mycenaean times, it must be admitted that of all the settlements on Hissarlik, only that one which shows that it has come in touch with Mycenaean civilization can lay claim to the title of Homeric Troy. Such a city was our fortress with its huge walls, towers, gates, and inner buildings-a city which before its destruction had at least commercial relations with the people bearing the civilization which has been brietly described.

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[^0]:    ${ }^{1}$ Gargarus (called to-day Kazdagh) is mentioned in $\theta, 48$; $\Xi$, 202, 352; 0, 152.
    ${ }^{2}$ Called by a Scholiast to N, 11, Saoke.

[^1]:    ${ }^{1}$ Cf. Fellner, Die homerische Flora, Wien, 1897.
    ${ }^{2}$ We cite some of the early adherents of the Troy-Hissarlik theory: Maclaren, Topography of the Plain of Troy, 1822; Grote,

[^2]:    ${ }^{1}$ Lechevalier, Voyage de la'Troade (Lechevalier visited the Troal in 1785); Choiseul-Gouffier, Voyage pittoresque de la Grèce, 1820; Texier, Description de l'Asie Mineure, 1839; Perrot, Excursion it Troie, 1874; Lenz, Die Ebene ron Troia, 1798; von Moltke, Briefe über Zustände und Begebenheiten in der Türkei, 1841; Forchhammer, Beschreibung der Ebene ron Troja, 1842; Welcker, Kleine Schriften, 1844; Kiepert, Memoir über die Construction der Karte ron Kleinasien, 1854; Hahn, Die Ausgrabungen auf der homerischen Pergamos, 1864; Hasper, Beiträge zur Topographic der homeríschen Ilias, 1867; Curtins, Griechische Geschichte, 18\%4; Leake, Journal of a Tour in Asia Minor, 1894; Fellowes, Excursion in Asia Minor, 1838; Acland, The Plains of Troy, 1839; Rawlinson, Herodotus, $18 \%$.
    ${ }^{2}$ Heinrich, Troja bei Homer und in der Wirklichkeit, 1895.

[^3]:    ${ }^{1}$ Griechische Geschichte, 1893.
    ${ }^{2} \Xi, 433$, and $\Pi, 395 \mathrm{ff}$., are ignored by him. Cf. Heinrich, Troja bei Homer und in der Wirklichkcit, 1895.

[^4]:    ${ }^{1}$ Herodotus, II, 10.
    2 Beiträge zur Landeskunde der Troas.

[^5]:    1"Und es scheint nichts dagegen zu sprechen," Heinrich.
    ${ }^{2}$ Ueber die homerische Ebenc von Troja, 1875. Cf. Heinrich. Troja bei Homer und in der Wirklichkeit.

[^6]:    ${ }^{1}$ See footnote on page 25 .

[^7]:    ${ }^{1}$ So The Mycenaean Age, p. 162, 1897. "A necessary complement was the chlaina, or thick woolen cloak, reaching to the knees, or eren to the ankles, and doubtless worn habitually by the elders, and in winter at least by the young men. It appears on the two old men just behind the bowmen on the background of the siege scene."
    ${ }^{2}$ So Rossbach, Philologus, 1892.
    3 Hesiod. Shield of Herakles, 237 ff.

[^8]:    ${ }^{1}$ Schliemann, Bericht über die Ausgrabungen in Troja im Jahre 1890 (Taf. I, II).

[^9]:    ${ }^{1}$ Dürpfeld, Troja, Bericht über die im Jahre 1893 in Troja veranstalteten Ausgrabungen.
    ${ }^{2}$ Dorpfeld, Mitth. Ath., 1894.

[^10]:    ${ }^{1}$ Brückner, Die keramischen Funde, Troja, pp. 80-120.
    ${ }^{2}$ Dörpfeld, Troja, Bericht über die im Jahre 1893 in Troja veraustalteten Ausgrabungen, pp. 56-60.

[^11]:    ${ }^{1}$ Dörpfeld, Troja, Bericht über die im Jahre 1893 in Troja veranstalteten Ausgrabungen, pp. 86-87.
    ${ }^{2}$ Later, as we hare seen, three towers were unearthed; also three gates-one of which was walled up in Mycenaean times -and a door leading to the Northeast Tower.

[^12]:    ${ }^{1}$ W. Ribbeck, Homerische Miscellen, 1888.
    ${ }^{2}$ Mykenai, Eine kritische Untersuchnng der Schliemannschen Alterthümer unter Vergleichung russischer Funcle, 1880.

[^13]:    ${ }^{1}$ Introduction to Schuchhardt-Sellers, 1891.
    ${ }^{2}$ Schliemanns Ausgrabungen und die homerische Kultur, 1893.
    ${ }^{3}$ Dörpfield, Lecture before Harvard University, Oct. 12, 1896.

[^14]:    ${ }^{1}$ Dörpfeld, Troja und Ilion, pp. 107-108, 1902. Cf. Dörpfeld, Mitth. Ath., pp. 380-394, 1894; Dürpfeld, Troja, 1893; Schliemann, Bericht über die Ausgrabungen in Troja im Jahre 1890; Schuchhardt-Sellers, Schliemann's Excarations, Appendix I, 1891.
    ${ }^{2}$ Dörpfeld, Troja und Ilion, pp. 109-111. Cf. Dörpfeld, Troja, 1893, pp. 30-36; Heinrich, Troja bei Homer und in der Wirklichkeit, p. 35; Tsountas and Manatt, The Mycenaean Age, Appendix A, p. 371, 1897.

[^15]:    ${ }^{1}$ Dürpfeld, Troja und Ilion, p. 111.

[^16]:    ${ }^{1}$ Dörpfeld, Troja und Ilion, pp. 112-113. Cf. Dürpfeld, Troja, 1893, pp. 38-46; Dürpfeld, Mitth. Ath., 1894, 382 ff; Heinrich, op. cit. pp. 38-39; Tsountas and Manatt, op. cit. pp. 369-370.
    ${ }^{2}$ Dürpfeld, Troja und Ilion, p. 113. Cf. Dörpfeld, Mitth. Ath., 1894, p. 385; Heinrich, op. cit. p. 35; Tsountas and Manatt, op. cit. p. 370.

[^17]:    ${ }^{1}$ Dörpfeld, Troja und Ilion, p. 126. Cf. Dörpfeld, Mitth. \&th., 1894; Heinrich, op. cil. p. 35; Tsountas and Manatt, op. eit. pp. 370-371.
    ${ }^{2}$ Dörpfeld, Troja und Ilion, pp. 126-131.

[^18]:    ${ }^{1}$ Dürpfeld, Troja und Ilion, pp. 131-133.

[^19]:    ${ }^{1}$ Dörpfeld, Troja und Ilion, pp. 135-139.

[^20]:    ${ }^{1}$ Dürpfeld, Troja und Ilion, p. 139. Cf. Dörpfeld, Mitth. Ath., 1894; Dörpfeld, Troja, 1893, pp. 46-56; Heinrich, op. cit. 35; Tsountas and Manatt, op. cit. p. 371.
    ${ }^{2}$ Dörpfeld, Troja und Ilion, pp. 133-135.

[^21]:    ${ }^{1}$ Dörpfeld, Troja und Ilion, pp. 130-144.

[^22]:    ${ }^{1}$ Dörpfeld, Troja und Ilion, pp. 144-151. Cf. Dörpfeld, Troja, 1893, pp. 43, 46-56.

[^23]:    ${ }^{1}$ Cf. Dörpfeld, Introduction to Tsountas anel Manatt's The Mycenaean Age, p. xxx.

[^24]:    ${ }^{1}$ Dürpfeld, Troja und Ilion, pp. 151-153. Cf. Dörpfeld, Troja, 1893, pp. 15-20; Schliemann's Bericht über die Ausgrabungen in Troja im Jahre 1890.

[^25]:    ${ }^{1}$ Dürpfelı, Troja unl Ilion, pp. 153-155. Cf. Dörpfeld, Troja, 1893, 1p. 20-23.

[^26]:    ${ }^{1}$ Dörpfeld, Troja und Ilion, pp. 161-162. Cf. Dörpfeld, Troja, 1893, p. 29.
    ${ }^{2}$ Cf. Schliemann, Ilios, p. 34.

[^27]:    ${ }^{1}$ Dörpfeld, Troja und Llion, pp. 162-163. Cf. Dürpfeld, Troja, 1893, pp. 28-29.

[^28]:    ${ }^{1}$ Dürpfeld, Troja und Ilion, pp. 164-169. Cf. Dörpfeld, Troja, 1893, pp. 27-28.

[^29]:    ${ }^{1}$ Dörpfeld, Troja und Ilion, p. 169.

[^30]:    ${ }^{1}$ Dörpfeld, Troja und Ilion, p. 175.
    ${ }^{2}$ Dörpfeld, Troja und Ilion, pp. 175-181.

[^31]:    ${ }^{1}$ Schliemann, Mycenae and Tiryns; Schuchhardt-Sellers, Schliemann's Excavations; Tsountas and Manatt, The Mycenaean Age; Frazer, Pausanias, III, 97-230; Dörpfeld, Troja und Ilion.
    ${ }^{2}$ Report of American School at Athens: American Journal of Archacology.
    ${ }^{3}$ Frazer, Pansanias, III, 141; Практька̀ тйऽ 'Aрхпиод. 'Еттирías, 1892, 52.
    ${ }^{4}$ Frazer, op. cit., III, 231; Mitth. Ath., 17, 95.
    ${ }^{5}$ Frazer, op. cit., V, 601.
    ${ }^{6}$ Frazer, op. cit., МІІ, 136; Тбойитая, ІІрактєка̀ тй/s 'Apдасод。 'Etatsias, 1891, 23.

[^32]:    
    ${ }^{2}$ Frazer, op. cit., III, 134; Gardner, New Chapters in Greek

[^33]:    ${ }^{1}$ Furtwängler und Löschcke, op. cit., 43.
    ${ }^{2}$ Ibid., 42.
    ${ }^{3}$ Frazer, op. cit. V, 398; Bulletin de Corresp. Hellénique, 18, 195.
    ${ }^{4}$ Furtwängler und Lüschcke, op. cit., 43.
    ${ }^{5}$ Frazer, op. cit., III, 140; Mitth. Ath., 9, 99.
    ${ }^{6}$ Annual Report of British School, 3, 1.
    ${ }^{7}$ Frazer, op. cit., III, 147; Fnrtwüngler und Lüschcke, op. cit., 1.
    ${ }^{8}$ Fonqué, Santorin et ses Eruptions.
    ${ }^{9}$ A. J. Evans, Jonrnal of Hellenic Studies; Halbherr, American Journal of Archacology; Boyd, American Journal of Archaeology.

[^34]:    ${ }^{1}$ Murray, Smith, and Walters, Exeavations in Cyprus.
    ${ }^{2}$ Flinders Petrie, Journal of Hellenic Studies, 11, 271.
    ${ }^{3}$ Furtwängler und Löschcke, op. cit., 47.
    ${ }^{4}$ Ibicl., op. cit., 48.
    ${ }^{5}$ Fouqué, Santorin et ses Eruptions, argues for 2000 B.C.

[^35]:    ${ }^{1}$ Heinrich, Troja bei Homer und in der Wirklichkeit, pp. 13-14. Cf. Tsountas and Mauatt, The Mycenaean Age, 1897; Frazer, Pausanias, Vol. III, pp. 144-160, 1898; Ridgeway, Early Age of Greece, Vol. I, 1901; Schuchhardt-Sellers, Schliemann's Excavations, 1891; Perrotet Chipiez, Hist. de l'art dans l'antiquité, tome VI (English edition, London and New York, 1894); Busolt, Griechische Geschichte, Vol. I, pp. 3-126; Brunn, Griechische Kunstgeschichte, Vol. I, pp. 1-64; Reisch, Die mykenische Frage, Verhandlungen der 42 Versammlung deutsch. Philologen, 1894, pp. 97-122; Тбойитац, Мvкйрає каі Мıкпиаїоя Іодıтєб $\quad$ бя, pp. 172-264, 1893.
    ${ }^{2}$ Heinrich, Troja bei Homer und in der Wirklichkeit, p. 14. Cf. Tsountas and Manatt, The Mycenaean Age, pp. 12-158; Frazer, Pausanias, Vol. III, pp. 98-144.

[^36]:    ${ }^{1}$ Heinrich, Troja bei Homer und in der Wirklichkeit, p. 16. Cf. Evans, Primitive Pictographs and a pre-Phoenician Script from Crete and the Peloponnese, Journal of Hellenic Studies, 1894, pp. 270-872; Tsountas and Manatt, The Mycenaean Age, pp. 268-293.
    ${ }^{2}$ Cf. Tsountas and Manatt, pp. 268-269.
    ${ }^{3}$ Cf. Ibid., p. 268.
    

[^37]:    ${ }^{1}$ Cf. Практька̀ тйs 'Архаıод. 'Етаирі́as. 1889, p. 9.
    ${ }^{2}$ Cf. Petrie, Ten Years' Digging in Egypt.
    ${ }^{3}$ Cf. Schliemann, Bericht über die Ausgrabungen in Troja im Jahre 1890, p. 25.
    ${ }^{4}$ Cf. Schliemann, Ilios, p. 691.
    ${ }^{5}$ Heinrich, Troja bei Homer und in der Wirklichkeit, pp. 17-29. Cf. Ridgeway, Early Age in Greece, Vol. I, pp. 80292; Tsountas and Manatt, The Mycenaean Age, pp. 316-346; Frazer, Pausanias, Vol. III, pp. 148-158; Gardner, New Chapters in Greek History, pp. 70 ff .

[^38]:    ${ }^{1}$ Cf. Reisch, Die mykenische Frage, p. 117.
    ${ }^{2}$ Cf. Reisch, op. cit., p. 109; Busolt, Griechische Geschichte, Vol. I, p. 320.
    ${ }^{3}$ Cf. Perrot et Chipiez, op. cit., p. 938.

[^39]:     tas and Manatt, pp. 341 ff.
    ${ }^{2}$ Cf. Harrington and Tolman, Greek and Roman Mythology, p. 97.

[^40]:    Fig. 37. 'The Lions' Gate at Mycenae

[^41]:    ${ }^{1}$ This has already been noted by Perrot, Journal des Savants, 1892, p. 444.
    ${ }^{2}$ (f. Evans, op. cit., pp. $2 \% 0 \mathrm{ff}$.
    ${ }^{3}$ Cf. F. Noack, Mitth. Aih., 1894, pp. 405-485; Tsountas and Manatt, The Mycenean Age, Appendix B, pp. 374-382.

[^42]:    ${ }^{1}$ Cf. Frazer, Pausanias, Vol. III, pp. 148-149.

[^43]:    ${ }^{1}$ Cf. Busolt, Gricchische Geschichte, Vol. I, p. 259.
    ${ }^{2}$ Cf. Evans, op. cit., p. 359.
    ${ }^{3}$ Cf. Furtwängler und Läschcke, op. cit., p. rii.

[^44]:    ${ }^{1}$ Professor Ridgeway (Early Age of Greece, Vol. I, pp. 294 ff.) goes so far as to maintain that the Homeric age was an iron age, and that the more frequent use of the wort bronze ( $\chi a \lambda$ нós) than the word iron ( $\sigma i \delta \eta \eta o s$ ) is merely a reminiscence of an earlier use of that metal. Cf. Jevons, Iron in Homer, Journal of Hellenic Sturlies, 1892.
    ${ }^{2}$ Heinrich, Troja bei Homer und in der Wirklichkeit, p. 27. Cf. Tsonntas and Manatt, The Mycenaean Age, pp. 159-190; Ridgeway, Early Age in Greece, Vol. I, pp. 297-299.
    ${ }^{3}$ Cf. Furtwängler und Löschcke, op. cit. Plate XLI.

[^45]:    ${ }^{1}$ Heinrich, Troja bei Homer und in der Wirklichkeit, pp. 27-29. Cf. Tsountas and Manatt, The Mycenaean Age, pp. 95-96, 136-139, 364-365; Ridgeway, Early Age in Greece, Vol. I, pp. 328-329.
    ${ }^{2}$ Professor Ridgeway (Early Age of Greece, Vol. I, pp. 337 ff.) has adranced the hypothesis that the Homeric Achaeans came from the north, and possessed a civilization to which the term Hallstatt has been applied, from that Alpine region where traces of this culture are still found; that these"fair-haired" people of the north pressed into the Peloponnesus and mingled with the Mycenaean race. In this way Professor Ridgeway enclearors to explain the blending of the two ciriliza-tions-the Mycenaean and the Achaean-which he believes appear in the Homeric poems.

